G-239

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6+(20—16)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

G-239

CITY ENGINEERS OFFICE

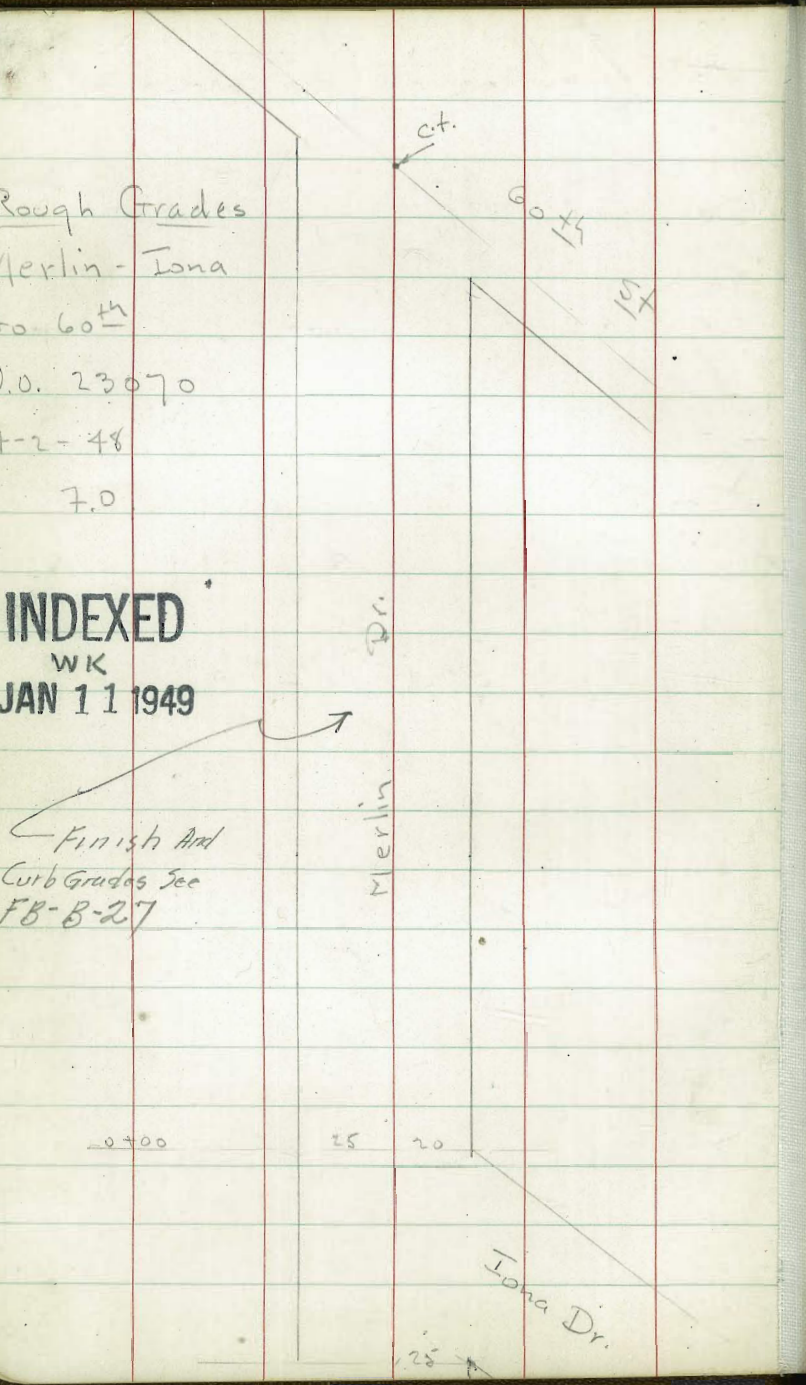
Completed

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

Rough Grades
Merlin - Iona
to 60th
W.O. 23070
4-2-48
7.0

INDEXED
WK
JAN 11 1949



S.W. 3/8" Pipe

1

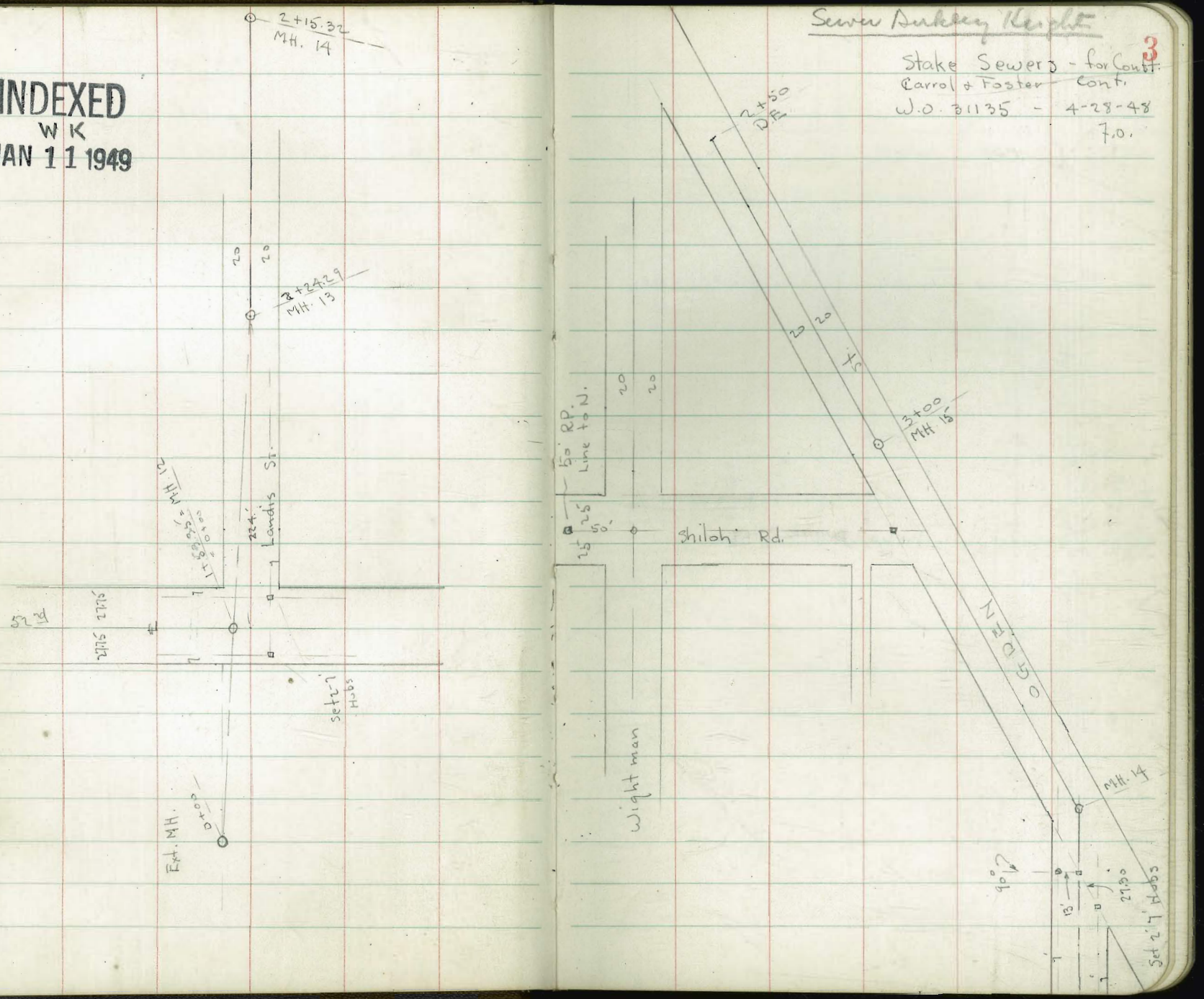
	6.94	290.91		283.97		
		N. Side		S. side		
0+00	9.4 81.5	282.98	F 1.5	3.7 87.2	83.50	C 3.7
+30.23	9.4 81.5	83.74	F2.2	2.9 88.0	84.25	C 3.7
+60.47	9.4 81.5	84.50	F3.0	2.6 88.3	85.0	C 3.3
1+00.47	10.4 80.5	85.30	F4.8	1.4 89.5	85.80	C 3.7
+40.47	10.5 80.4	85.68	F5.3	0.7 90.2	86.18	C 4.0
+40.47	10.0 80.9	85.67	F4.8	0.8 90.1	86.17	C 3.9
2+20.47	8.3 82.6	85.24	F2.6	0.2 90.7	85.74	C 5.0
+53.57	7.6 83.3	85.18	F1.9	0.3 91.2	84.68	C 6.5
+86.66	8.4 82.5	84.13	F1.6	0.0 90.9	84.63	C 6.3
3+06.66	8.7 82.2	83.81	F1.6	0.3 90.6	84.56	C 6.0

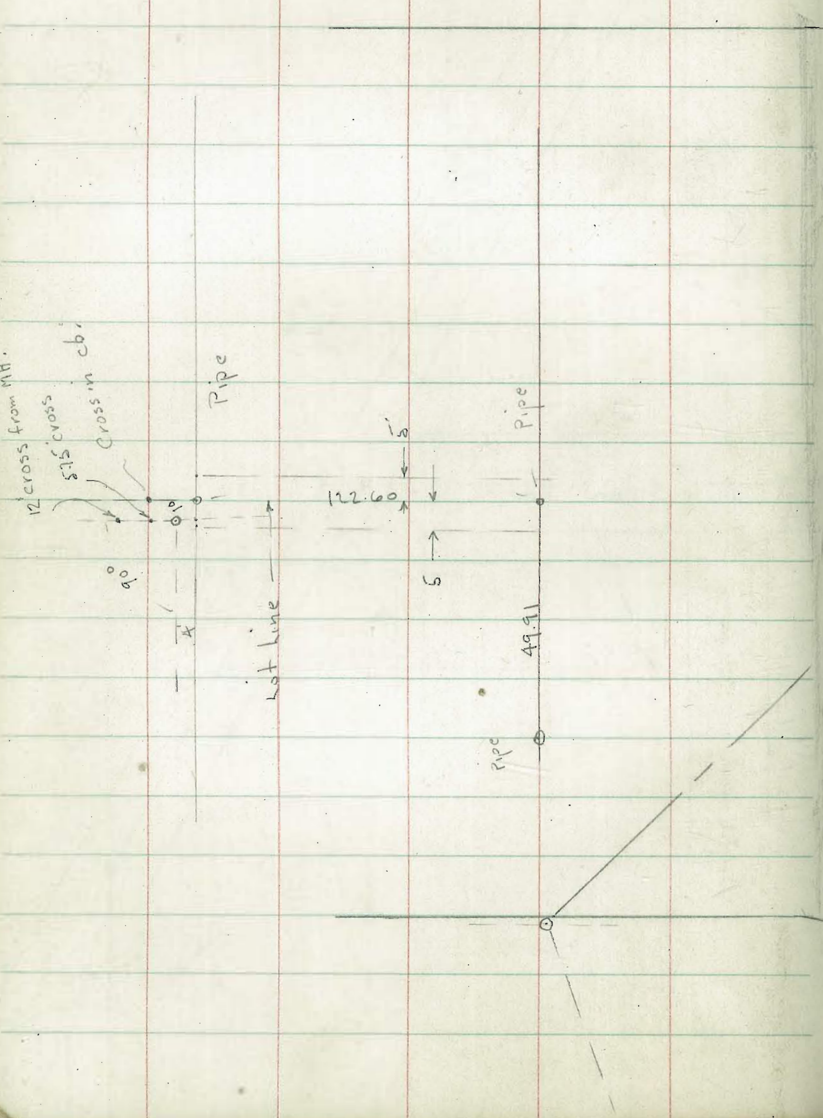
2909

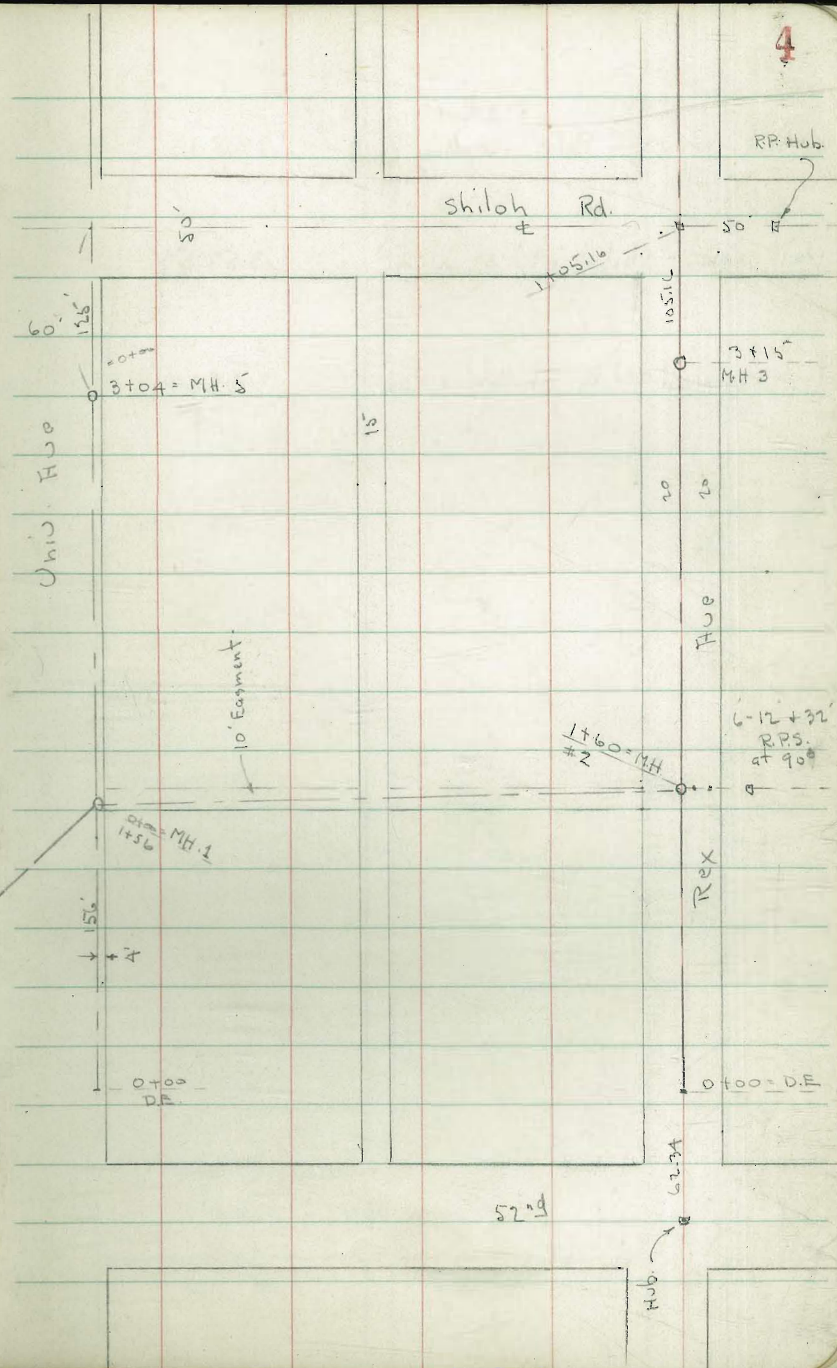
		N.		S.	
	8.6		F1.2 2.0		
3+26.66	82.3	83.50	88.9	84.70	C 4.2
	8.36			5.69	
cb. on N.		82.55		85.22	

Sewer Berkley Heights

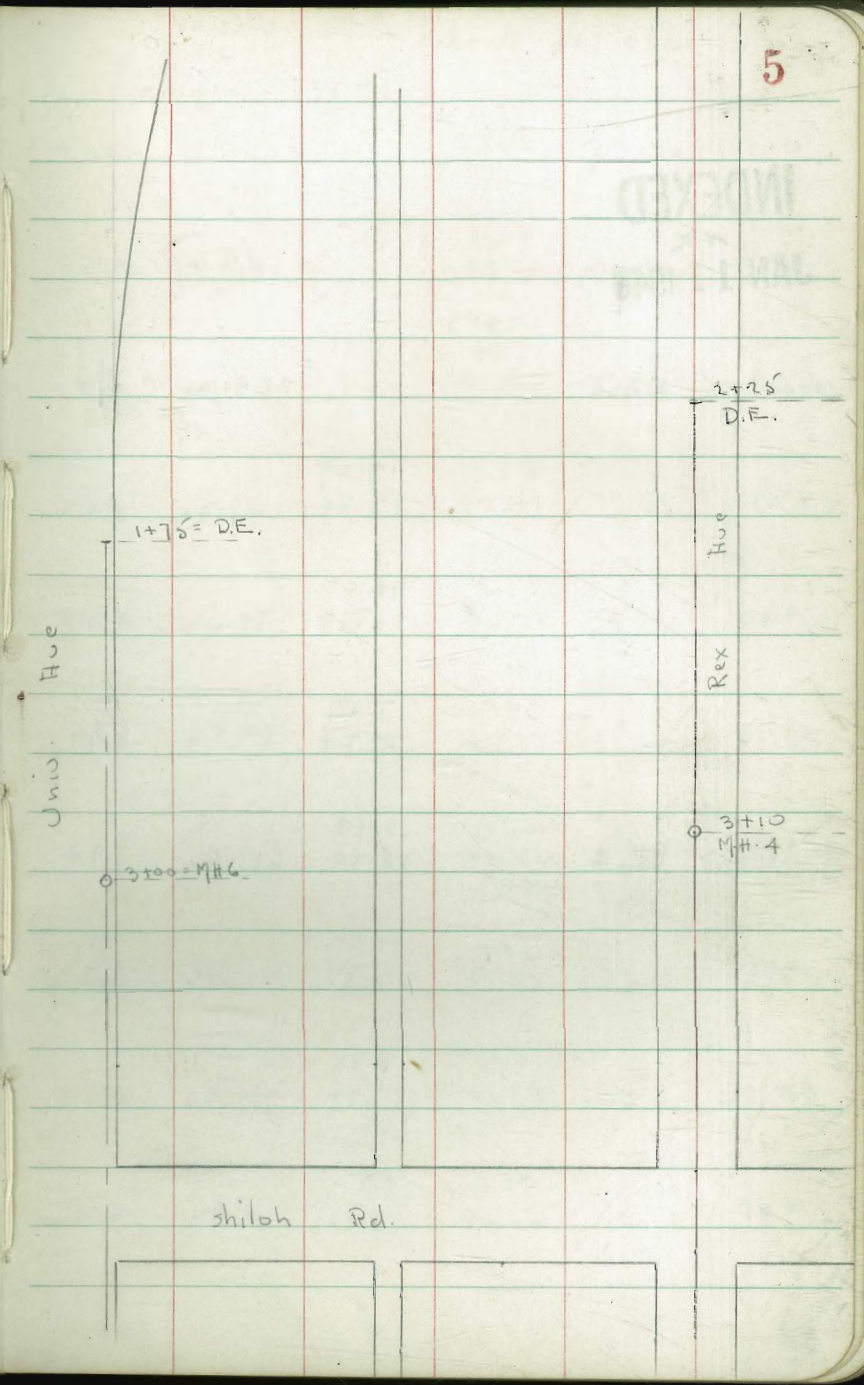
Stake Sewers - for Contr.
Carroll & Foster - Cont.
W.O. 31135 - 4-28-48
T.O.




12' cross from MH.
5.75' cross
Cross in cb.
Pipe
90°
4'
Lot Line
122.60
5'
5
Pipe
49.91
Pipe


Shiloh Rd.
50'
60'
125'
0+00
3+04 = MH. 5
Ohio Ave
15'
10' Easment
0+00 = MH. 1
1+56
15'
4'
0+00
D.E.
52nd
R.P. Hub.
50
1+05.16
105.16
3+15
MH 3
20
20
Ave
1+60 = MH
#2
6-12 + 32'
R.P.S.
at 90°
Rex
0+00 = D.E.
62.34
Hub.

Nail-in S.E. Pole 52nd + Landis		328.73
Nail-Pole - Shiloh + N. of Wight		352.59
Rock in Wall - N.E. Shiloh + Rex		341.64



Grades on Landis — 4-28-48
Osborne
Hardin
Worrell
Rorer

		25.83			
0+00 = Ext. MH.			304.00	C	
		13.29			
+40		12.54	07.51	5.03	
		10.04			
+80		15.79	11.02	4.77	
		2.59			
1+20		23.24	14.53	8.71	
	38.47				
+53.35 = MH. 12		0.43			
=0+00	38.47	25.40	317.46	7.94	
		11.62			
+50		26.85	20.46	6.39	
		8.73			
1~		29.74	23.46	6.28	
		5.72			
+50		32.75	26.46	6.29	

	38.47				
		0.91			
2+00		37.56	29.46	C 8.10	
	49.94	10.28			
2+24.29 = MH. 13		39.66	30.92	8.74	
=0+00		8.09			
+35		41.45	32.25	9.60	
		5.58			
+70		44.41	33.58	10.83	
		3.73			
1+05		46.21	34.91	11.30	
		4.61			
+40		45.33	36.24	9.09	
		5.70			
+75		44.24	37.57	6.67	
		4.57			
2+15.32 = MH. 14		45.43	39.10	6.33	
=0+00		1.24			
+50		48.70	40.60	8.10	
	59.44				
		6.89			
1~		52.55	42.10	10.45	

Grades on Rex.

		59.44				
			5.91			Cut
1+50			53.53	43.60	9.93	
			5.87			
2-			53.57	45.10	8.47	
			5.19			
+50			54.25	46.60	7.65	
			4.57			
3+00 = M.H. 15			54.67	48.10	6.77	
			4.22			
+50			55.22	48.50	6.72	
			4.12			
1-			55.32	48.90	6.42	
			4.22			
+50			55.22	49.30	5.92	
			3.30			
2-			56.14	49.70	6.44	
			4.02			
2+50 = D.E.			55.42	50.10	5.32	

Stakes 6' Rt.

	2.28	335.62		333.34	Nail Pole Rex + 52nd
			3.40		
0+00 = D.E.			32.22	32.72	C 4.50
			3.36		
+40			32.26	25.04	7.22
			3.58		
+80			32.04	22.36	9.68
			7.88		
1+20			27.74	19.68	8.06
6+12-32	Drop	31.60			
			10.61		
1+60 = M.H. 2			20.99	17.00	3.99
1+60 - Line to E.				12.31	8.68
=0+00					
			12.94		
+40			18.66	14.31	4.35
			10.88		
+80			20.72	16.31	4.41
			6.60		
1+20			25.00	18.31	6.69
			2.41		
+60			29.19	20.31	8.88

	43.91			
		11.86		
2+00		32.05	22.31	9.74
		9.66		
+40		34.25	24.31	9.94
		7.55		
+80		36.36	26.31	10.05
		6.30		
3+15 = M.H.3 6+12		37.61	28.06	9.55
= 0+00				
		6.29		
+40		37.62	30.06	7.56
		4.91		
+80		39.00	32.06	6.94
		1.96		
1+20		41.95	34.06	7.89
	56.39			
		11.65		
+60		44.74	36.06	8.68
		9.22		
2+00		47.17	38.06	9.11
		7.47		
+40		48.92	40.06	8.86

	6' Rt.	56.39		
		6.05		
2+80		50.34	42.06	8.28
		5.15		
3+10 = M.H.4 6+12		51.24	43.56	7.68
		4.21		
+40		52.18	43.84	8.34
		3.67		
+80		52.72	44.12	8.60
		3.25		
1+20		53.14	44.40	8.74
		3.74		
+60		52.65	44.68	7.97
		5.17		
2+00		51.22	44.96	6.26
		6.86		
2+25 = D.E.		49.53	45.14	4.39

Grades - on Easement - Univ. to Rex

stakes - 6' Lt.

M.H. 1 = 0+00			297.52	
		12.97		
+50		07.56	300.03	C 7.53
		12.38		
1 ~		08.15	02.54	5.61
		10.61		
+50		09.92	05.05	4.87
		9.16		
2 ~		11.37	07.56	3.81
		5.32		
+50		15.21	10.07	5.14
2+94.53 = M.H. 2			12.31	

		1.03	316.60		315.57	= New Univ +52 9
along Univ.						
			Cross in cb - 5.75 N.			
			16.60	1.14		
0+00 = D.E.				15.46	310.00	5.46
				3.09		
+39				13.51	06.88	6.63
				5.50		
+78				11.10	03.76	7.34
				7.62		
1+17				08.98	00.64	8.34
				9.00		
1+56 = M.H. 1				07.60	97.52	10.08
				9.37		
+50				07.23	99.41	7.82
				8.82		
1 ~				07.78	01.30	6.48
				7.27		
+50				09.33	03.19	6.14
				5.68		
2 ~				10.92	05.08	5.84
				4.04		
+50				12.56	06.97	5.59

		16.60			
2+77			3.17 13.43	07.99	5.44
		26.04			
3+04	M.H.5		11.75 14.29	09.00	5.29
+50			10.10 15.94	11.00	4.94
1~			8.46 17.58	13.00	4.58
+50			6.95 19.09	15.00	4.09
2~			3.66 23.38	17.00	5.38
+50			6.32 25.72	19.00	6.72
		33.81			
3+00	M.H.6		5.74 28.07	21.00	7.07
+50			4.47 29.34	21.50	7.84
1~			4.52 29.29	22.00	7.29

	33.81			
1+50		5.68 28.13	22.50	8.63
1+75 - D.E.		6.83 26.98	22.75	4.23
Easement - N. of Univ.	310.11			
0+00 = Ext. M.H.		21.66	88.40	88.48 ✓
+40		16.09 94.02	89.72	4.30
+80		15.24 94.87	91.04	3.83
1+20		14.33 95.78	92.36	3.42
+60		12.70 97.41	93.68	3.73
2+00		1.33 08.78	95.00	13.78
+40		1.97 08.14	96.32	11.82
+75.92 - M.H.1		2.51 307.60 T.P.	97.52	

2332

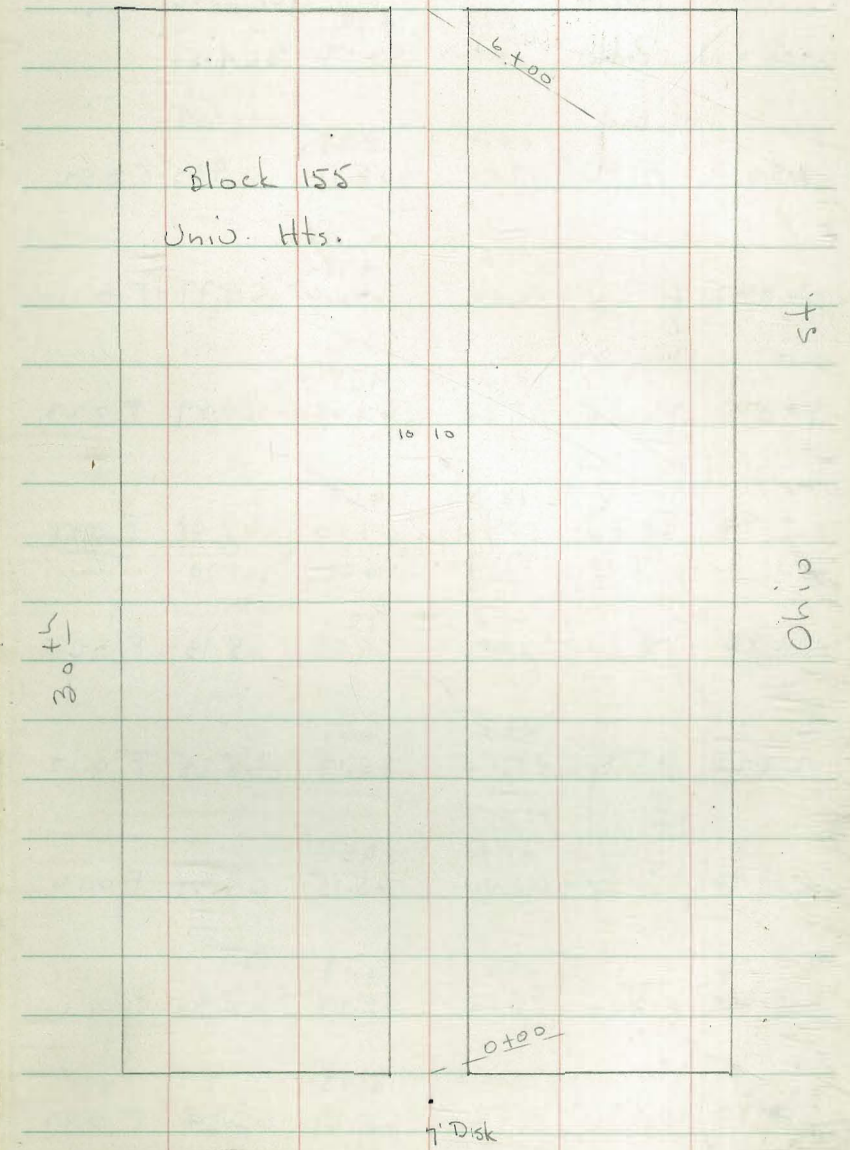
W.O. 31106

5-7-48

Osborne
Hardin
Worrell
Rorer

Stake Alley for Paving

Block 155 - Univ. Heights.



	3.48	369.44		365.96	S.E. Ohio + Polk
				Grade = W	
0+00 = N.L. Polk			4.92 64.52	364.54	
	Dist Back				
+20	1'		4.27 65.17	64.65	C 0.52
+60	2'		4.78 64.66	64.77	F 0.11
1+00	2		4.78 64.66	64.89	F 0.23
+40	2'		4.64 64.80	65.01	F 0.21
T.P.	7.00	371.70	4.74	364.70	
+80	2'		7.22 64.48	65.13	F 0.65
2+20	2' = cross		6.57 65.13	65.25	F 0.12
+40	-2' cross		6.55 65.15	65.31	F 0.16
+60	5'		6.19 65.51	65.40	C 0.11
+80	2'		6.43 65.27	65.54	F 0.27

		69.44			
				= E. side	
			4.83 64.61	64.62	
	Dist. Back				
	2'		4.60 64.84	64.95	F 0.11
	2'		4.07 65.37	65.07	C 0.30
	0.24 = Nail		4.14 65.30	65.19	C 0.11
	2'		4.81 64.63	65.31	F 0.68
		71.70			
	2'		6.74 64.96	65.43	F 0.47
	2'		5.46 66.24	65.55	C 0.69
	3'		4.96 66.84	65.61	C 1.23
	2'		5.36 66.34	65.70	C 0.64
	2'		4.51 67.19	65.84	C 1.35

	Dist Back	371.70		W	
			6.32		
3+00	2'		65.38	65.74	F 0.36
			6.00		
+20	2'		65.70	65.99	F 0.29
			5.64		
+40	2'		66.06	66.30	F 0.24
			5.42		
+60	2'		66.28	66.67	F 0.39
			3.86		
4+00	2'		67.84	67.45	C 0.39
			2.36		
+40	0.03 in = Nail		69.34	68.23	C 1.11
			3.13		
+60	2'		68.57	68.54	C 0.03
			2.77		
+80	2'		68.93	68.71	C 0.22
	5.03	273.85	2.88	268.82	
			5.17		
5+00	2'		68.68	68.71	F 0.03
			5.17		
+20	2'		68.68	68.55	C 0.13

	Dist Back	371.70			
			4.11		
	3'		67.59	66.04	C 1.55
			3.98		
	3'		67.72	66.29	C 1.43
			4.12		
	2'		67.58	66.60	C 0.98
			4.00		
	2'		67.70	66.97	C 0.73
			2.96		
	2'		68.74	67.75	C 0.99
			2.35		
	0.52 = Nail		69.35	68.53	C 0.82
			2.82		
	1'		68.88	68.84	C 0.04
			2.73		
	1'		68.97	68.98	F 0.01
		373.85			
			4.42		
	2'		69.43	68.95	C 0.48
			4.73		
	2'		69.12	68.74	C 0.38

373.85

	Dist Back			
5+40	2'	5.08 68.77	68.23	C 0.54
+60	2' = cross	5.09 68.76	67.76	C 1.00
+80	2'	5.15 68.70	67.14	C 1.56
6+00 = S.L. Howard.		7.50 66.36	66.36	

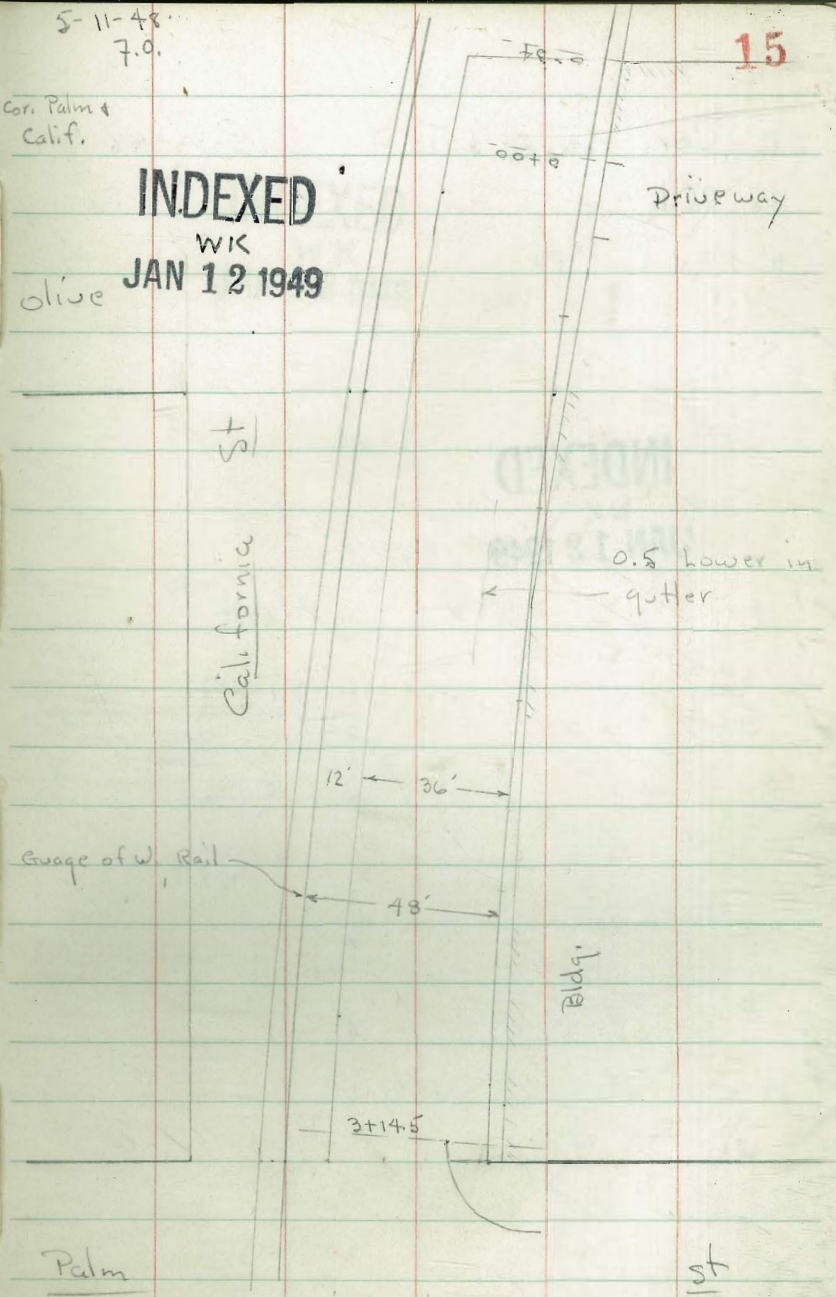
373.85

	Dist Back			
	2' = cross	4.97 68.88	68.37	C 0.51
	2'	4.82 69.03	67.83	C 1.20
	2'	5.09 68.76	67.12	C 1.64
		7.64 66.21	66.24	

5-11-48
7.0.

Paving Grades on W. side of California

S. of Palm 203		30.43		28.40 B.P. in Signal = 25'S. of SE Cor. Palm & Calif.	
	cuts in Wall	Prop. Grade		E. side Grade = 12' from Rail stakes 3' Back	
S. end. Bldg.			8.77		
0-34 =	8.99	21.44	21.66	21.86	F 0.20
= S. side of Dr.			8.20		
0+00 0.5 Back	8.60	21.83	22.23	22.25	F 0.02
			7.74		
+50 3' B.	7.84	22.59	22.69	23.01	F 0.32
			7.15		
1+00 6.38 B	7.08	23.35	23.28	23.77	F 0.49
			6.31		
+50 2.32 B	6.32	24.11	24.12	24.53	F 0.41
			6.00		
2 ~ 3.36 B	5.56	24.87	24.43	25.29	F 0.86
			4.93		
+50 3.15 B	4.80	25.63	25.50	26.05	F 0.55
ang in gutter.			4.48		
+90 2.24 B	4.19	26.24	25.95	26.66	F 0.71
= end. cb.			3.26		
3+14.5	3.83	26.60	27.17 = est. Pave	27.02	
0-54	22.21	21.21 = C 1.00	21.47	21.63 49	F 0.16



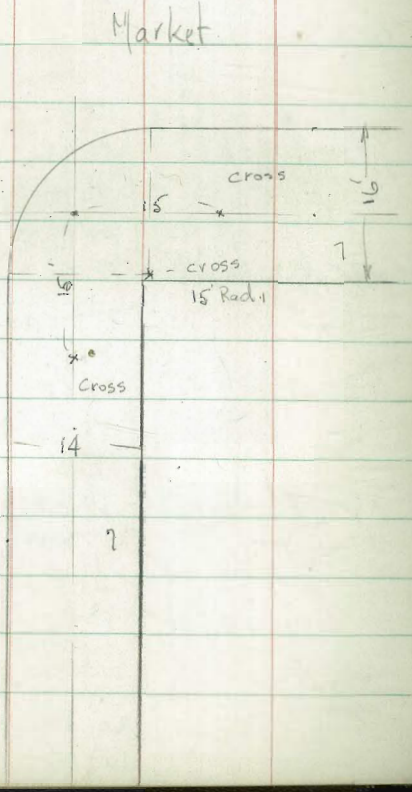
S.E. Cor Market + 10th

15' Rad.

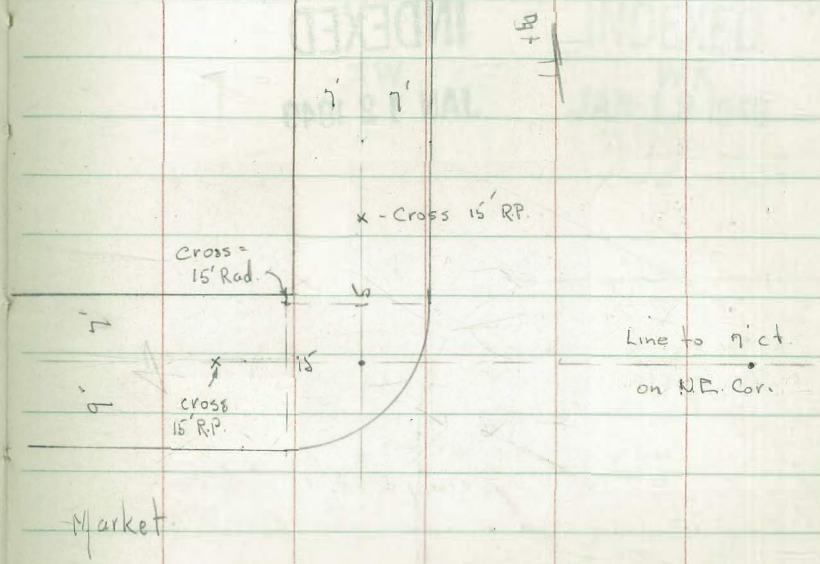
15' R.P.s to 7' Pt.

5-13-48

7.0.



51
+
2



N.W. Cor Market + 11th

15' Rad.

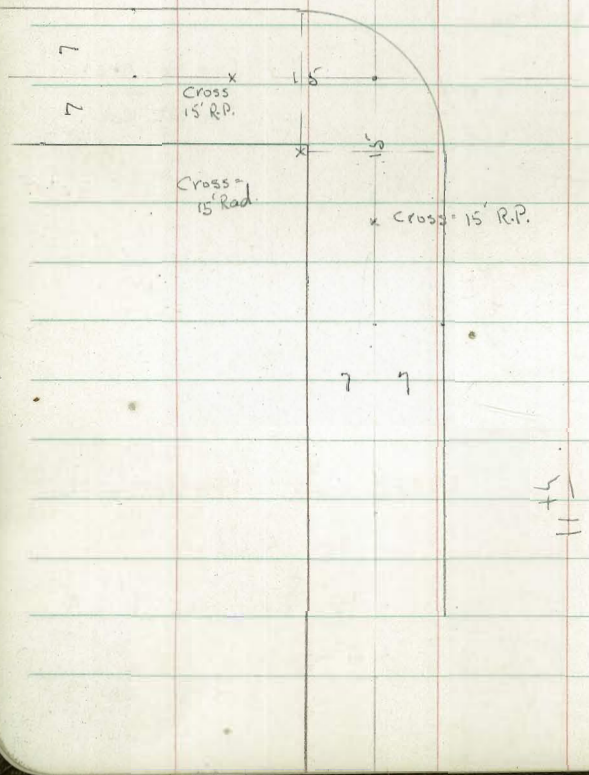
15' R.P.s to 7' c.t.

S.W. Cor. 11th & G

15' Rad.

15' R.P.s to 7' ct.

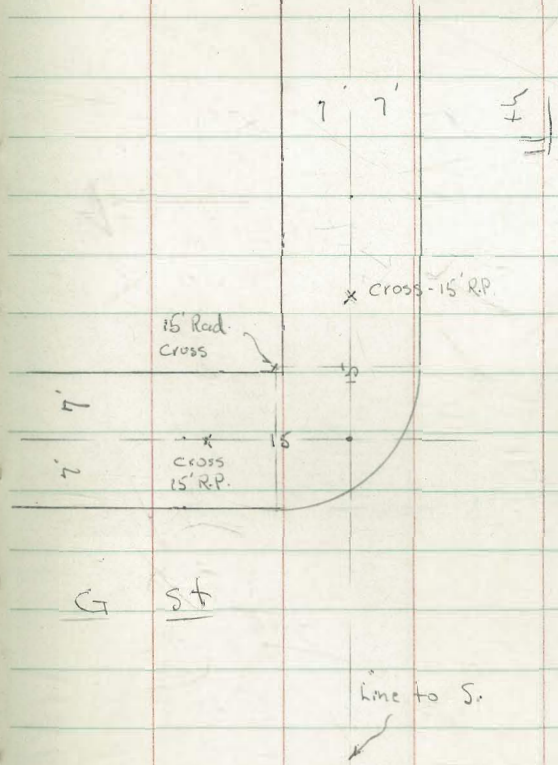
G St



N.W. Cor. 11th & G

15' Rad.

15' R.P.s to 7' ct.



S.E. Cor. 11th & Market

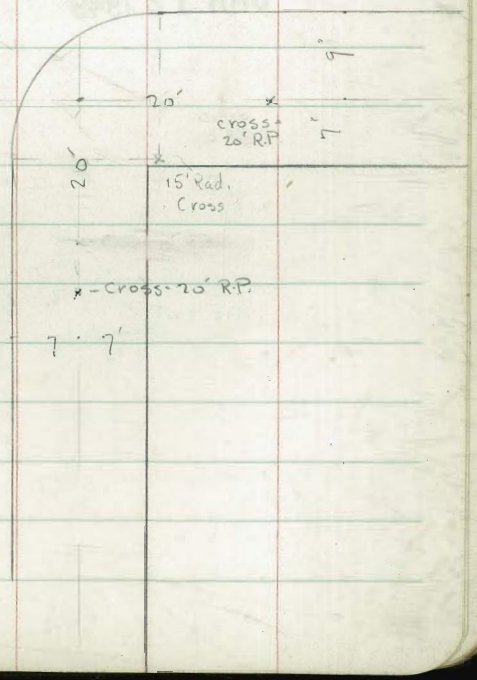
15' Rad.

20' R.P.s - to 7' ct.

5-13-48

7.0.

Market

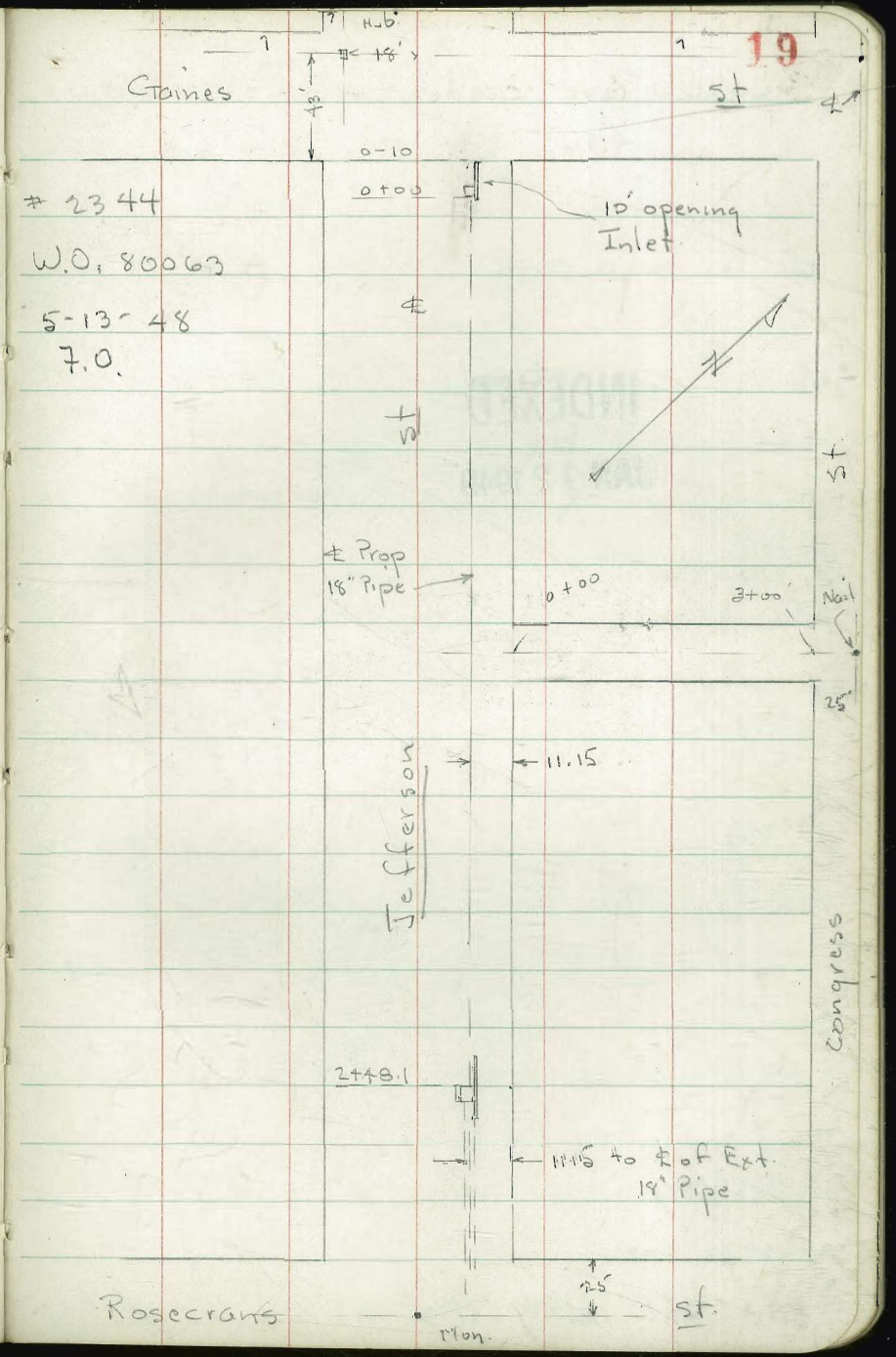


Grades for 18" Culvert + 10' Inlet.

on Jefferson - Gaines to Rosecrans.

4.02 8.27

		Grade	4.25 = T.P. = Cross in walk S.W. Cor. To Top cb.
E.L. Gaines = W.L. Inlet.	4.97	3.30	
stakes - 3' back of cb. face			To Top of cb.
Beg. Pipe 0+00 = E.L. Inlet	4.94 / 3.33	3.33	
same stake			
F.L. Pipe		- 0.22	C 3.55
stakes - 4' Lt. of ℄ Pipe			
+50	4.59 / 3.68	- 0.44	C 4.12
1 ~	4.45 / 3.82	- 0.66	4.48
+50	4.67 / 3.60	- 0.88	4.48
2 ~	4.19 / 4.08	- 1.10	5.18
+48.1 = Meet ext. Box. + on edge = ℄	5.12 / 3.15	- 1.32	C 4.47



Curb + Pave Grades on Jefferson

4.16 8.41		4.25' = cross in walk		
			49.90 = Alley	
P.C. Ret. on Rosecrans	4.82 3.59	4.96	1 + 51.90 = 2' Rad	5.83 2.58 3.70 F 1.12
			+ 87.4	4.87 3.54 3.61 F 0.07
+ 10.47	4.94 3.47	4.90 F 1.43		
			2 + 24.9 = end cb. + Pave	5.10 3.31 3.52 F 0.21
	4.90 3.51	4.81 F 1.30		
N.L. Rosecrans			2 + 69.9	4.95' 3.46 3.40 C 0.06
E.C. = 0+00	4.93 3.48	4.65' F 1.17		
			2 + 99.80 = S.L. Gaines	
+ 20	4.70 3.71	4.40 F 0.69	inlet in	
+ 40	4.50 3.91	4.15' F 0.24		
			1+29.90	4.46
+ 70	4.60 3.81	4.03 F 0.22	S.L. Alley - E.L. Jeff 2' Back	3.95' 3.89 C 0.06
			1+59.90	4.72
1+00	4.72 3.99	3.91 C 0.08	N.L. Alley - E.L. Jeff 2' Back	3.69 3.81 F 0.12
- 2' Rad				
+ 27.90 - Alley	5.44 2.97	3.80 F 0.83		
= 29.90 = Line				

SEE ALSO PAGE 31

Pave Grades - for edge at ℄ Jefferson.

8.41

0+00 = N.L. Rosecrans.	4.80 3.61	4.30	F 0.69	
+20	4.71 3.70	4.22	F 0.52	
+40	4.81 3.60	4.03	F 0.43	
+70	462 3.79	3.91	F 0.12	
1+00	4.70 3.71	3.79	F 008	
+29.90 = S.L. Alley	4.63 378	3.67	C 0.11	
+49.90 = N.L. Alley	4.64 3.72	3.59	C 0.13	
+87.4	4.64 3.77	3.47	C 0.30	
2+24.9	4.71 3.70	3.35	C 0.35	
2+59.80	4.68 3.73	3.23	C 0.50	
+79.80	4.85 3.56	2.64	C 0.92	
+99.80 = S.L. Gaines	4.93 3.48	3.10	C 0.38	

W.O. 80063

6-3-48

70.

Grades - in Alley - Bet. Jefferson & Congress
Block 375 - .25 excepted on each side
Rec'd. OLD TOWN 8.41

				Nly side				Sly. Side	
0+00 = E.L. Jeff			3.69	3.75	F 0.06		outs.	3.95	3.75	C 0.20
	outs.									
+44	2'		4.63 3.78	3.87	F 0.09		2'	4.76 3.65	3.87	F 0.22
+84	2		4.34 4.07	3.99	C 0.08		2	4.55 3.86	3.99	F 0.13
1+32	2		4.32 4.09	4.11	F 0.02		1	3.50 4.91	4.11	C 0.80
+76	2		4.02 4.39	4.23	C 0.16		2	4.04 4.37	4.23	C 0.14
2+20	2 T =	9.49	3.49 4.92	4.34	C 0.58		2 T =	3.81 4.60	4.34	C 0.26
+40	1		4.71 4.78	4.36	C 0.42		2	4.94 4.51	4.36	C 0.15
+60	Line		4.56 4.93	4.21	C 0.72		3.25'	5.14 4.35'	4.21	C 0.14
+80	2.25'		5.13 4.36	3.97	C 0.39		3.25'	5.36 4.13	3.97	C 0.16
w.L. Congress 2+00 =	2.25'		5.53 3.96	3.60	C 0.36		2.25'	5.70 3.99	3.60	C 0.19

Curb Grades on Garnet - Ingraham to Morrell - stakes 3' Back

5.39 67.99		62.60	Garnet + Ingraham S/C. B.P.
Set B.M. on N.W. Cor. - 7'ct.	4.73	63.26	
N.E. Ret.			
N. end = 6' N. of N.L.	5.19 62.80	63.30	F 0.50
	4.79 63.20	63.20	C
	4.84 63.15	63.12	C 0.03
P.C. = E.L. Ingraham	4.92 63.07	63.07	—
S.E. Ret.			
S. end - 6' S. of S.L.	5.65 62.34	62.31	ext. cb.
	5.38 62.61	62.54	C 0.06
	5.30 62.69	62.63	C 0.06
P.C. = E.L. Ingraham	5.31 62.68	62.68	

		North		South	
Ingraham 0+00 = E.L.		63.07		62.68	
+25	4.55 63.47	63.47			
+50	4.41 63.88	63.88			
Rake - 35', S			in Dr. 1+20 to Cross		F 0.04
2+60 = Brk.	0.87 67.12	67.12	6.83 67.16	67.16	
Rake - 35', S					
Jewell = P.C.	4.70				
5+00 = W.L.		69.17		68.92	
Jewell + Garnet.	3.56	72.30		68.74 = S.W. B.P. 68.94 = S.W. 7'ct.	
N.W. Ret. - Jewell					
W.L. Jewell			3.13		
P.C. =				69.17	
			3.17 69.13	69.10	C 0.03
			3.22 69.08	69.08	
E.C. = 6' N. of N.L.			3.18 69.12	69.12	
S.W. Ret. - Jewell					
W.L. Jewell			3.38		
P.C. =			68.92	68.92	
			3.42 68.88	.83 68.77	C 0.05
			3.55 68.75	69.73 69.69	
E.C. = 6' S. of S.L.			3.77 68.53	68.53	

72.30

stakes 3' Back

N.E. Ret. - Jewell

E.L. Jewell	4.09 68.21	68.21		
P.C. 10' Rad.	3.98 68.32	68.26	C 0.06	
	3.97 68.33	68.31	C 0.02	
	3.88 68.42	68.42		
E.C. Rad.	3.70 68.60	68.60		
9.45 = end.	3.50 68.80	68.80		

S.E. Ret. - Jewell

E.L. Jewell = P.C.	4.38 67.92	67.92		
	4.32 67.98	67.92	C 0.06	
	4.46 67.84	67.84		
E.C. = 6' S. of S.L.	4.55 67.75	67.75		

B.M.	3.31	72.05		68.74	= SW. Jewell
	3.64	69.95	5.74	66.31	= N.E. 7' Disk Kendall

stakes 3' Back

	N.		S.	
E.L. Jewell 0+00 =	68.21		67.92	
35's - Rake		1+05 -		C 0.06
2+50	67.11		66.86	
35's Rake				
	π = 69.95			
4+70		3.81 66.14	66.14	✓
4+85'		4.04 65.91	65.91	✓
W.L. Kendall 5+00 =	66.27		65.59	

π = 69.95

Set 7' Disks on N.W. & N.E. Corners - Prod. from Hornblend.

N.W. Ret. - Kendall

W.L. =		3.68 66.27	66.27	
+7.52 = P.C.		3.70 66.25	66.25	
	Cross	3.61 66.34	66.29	C 0.05
		3.06 66.89	66.39	C 0.50
= N.L.		1.79 68.16	66.46	C 1.70

N.E. Ret. Kendall

E.L.		3.71 66.24	66.24	
+12.32 = P.C.		3.73 66.22	66.22	
		3.66 66.29	66.23	C 0.06
		3.51 66.44	66.44	
		1.70 68.25	66.55	C 1.70

24 69.95

S.E. Ret. Kendall

P.C. = E.L.	3.90 / 66.05	65.46	C 0.59
	4.19 / 65.76	65.25	C 0.51
	5.22 / 64.73	65.00	F 0.27
E.C. = 10' S. of S.L.	5.84 / 64.11	64.60	F 0.49

S.W. Ret. Kendall

P.C. = W.L.	4.36 / 65.59	65.59 ✓	
	4.10 / 65.85	65.32	C 0.53
	4.85 / 65.10	6510	
E.C. = 6' S. of S.L.	5.25 / 64.70 = cb.	64.72	

Kendall to Lamont.

π = 65.95

		N		S.	
Kendall 0+00 = E.L.				65.46	
+15			3.90 / 66.05	65.80	C 0.25
+30			3.91 / 66.04	66.00	C 0.04
+65		Rake		cross-3'B.	C 0.03
1+00			Rake	"	C 0.09
+35				"	C 0.05
+70				"	C 0.03
2+10	73.86 = π			"	C 0.04
+50 = Brk.	7.19 / 66.67	66.67 ✓	3.92 / 66.03	65.97	C 0.06
2+62 = Meet on S. = o.k.					

Rake

4+75	6.75 / 67.11	67.11

See P. 27

Grades - Alley Block 17 - Terralta

Sketch - B - 1637 - P.49 - To 185' S. of S.L.

Orange (Sub of Lots 20 - 50 Block N)

		E. Side			W. Side	
0+00		5.41 64.56	362.56		5.29 62.68	62.68
+20	1.5 B	4.74 63.23	63.23 62.86	C 0.37	5.17 62.80	62.80
+40	cross 3' B.	4.71 63.26	63.26 63.03	C 0.23	4.16 63.81	62.81 C 1.00
+60	Nail 1.04' B	3.78 64.19	64.19 63.02	C 1.17	4.23 63.74	62.74 C 1.00
+80	Nail 1.23' B	4.10 63.87	62.87	C 1.00	4.40 63.87	62.87 C 1.00
1+15		4.96 63.01	63.01 62.68	C 0.33	4.58 63.39	63.39 62.38 C 1.01
1+50		5.24 62.73	73 62.49	C 0.24	5.10 62.87	.87 62.19 C 0.68
1+85 = end.		5.46 62.51	51 62.30	C 0.21	5.31 62.66	66 62.00 C 0.66

W.O. 80105

6-15-48-7.0.

36

N.W.B.P. Marlborough + Orange

	5.27	368.05		362.78
T.P.	5.80	367.97	5.88	362.17

0.07 Back cut in Wall

0.05 B "

0.90 B "

0.87 B "

Cont. from P. 25

73.86

N.W. Ret Lamont.

14.81 W. of W.L.

6.65
67.21 — 67.21

6.58
67.28 — 67.28

6.52
67.34 — 67.30 — C 0.04

6.49
67.37 — 67.41 — F 0.04

= end at Wall

72.08

S.W. Ret.

5.90 — 66.18 = S.E. 1/4 ct. Lamont & Garnet

W.L.

5.97
66.11 — 66.10 — C 0.01

6.04
66.04 — 66.03 — C 0.01

6.13
65.95 — 65.95

6.40
65.68 — 65.68 = ext cb.

S.E. Ret.

E.L.

5.99
66.09 — 66.09

5.93
66.15 — 66.10 — C 0.05

6.07
66.01 — 66.01

6.35
65.73 — 65.73 = ext cb.

72.08

N.E. Ret.

E.L.

4.88
67.20 — 67.20

4.90
67.18 — 67.18

4.94
67.14 — 67.14

4.62
67.46 — 67.46 = ext cb.

Rake

T = 71.28

		N		S.	
2+20 = Brk	4.86	67.93 (3.35)	67.93	4.31 / 66.97	66.97
2+90 =		Cross in Dr.			C 0.01
B.M.	4.86	71.28			66.42 = N.W. Morrell
				4.74	66.54 = N.W. 1/4 c.t.

7.1.28

N.W. Rct - Morrell

W.L.	4.76 66.52	66.52	
= cross	4.78 66.50	66.50	- Grade
	4.73 66.55	66.55	
	4.58 66.70	66.71	= ext. cb.

S.W. Rct.

W.L.	5.08 66.20	66.20	4.73
	5.16 66.12	66.09	C 0.03
	5.25 66.03	66.03	
	5.51 65.77	65.77	

Rough Grade Stakes on Bramson Place

2459
W.O. 31356

6-22-48
7.0.

B.M.	1.25	375.50		374.25	SW. 33rd + El Cajon		375.50				
				South						North	
W.L. 33rd											
0+00=		5'		70.20						70.90	
+20		5' B	4.5 / 71.0	71.0 / 370.21	C 0.8		3' B.	4.3 / 71.2	71.2 / 370.67	C 0.5	
+50		5' B	4.2 / 71.3	71.3 / 70.11	C 1.2		3' B.	4.6 / 70.9	0.9 / 70.33	C 0.6	
1+00		5' B	4.9 / 70.6	70.6 / 69.64	C 1.0		5' B	5.5 / 70.0	70.0 / 69.71	C 0.3	
+40		5' B	5.3 / 70.2	70.2 / 69.08	C 1.1		5'	5.6 / 69.9	9.9 / 69.21	C 0.7	
+80		5	6.1 / 69.4	69.4 / 68.53	C 0.9		5'	6.4 / 69.1	9.1 / 68.72	C 0.4	
2+20		5	6.6 / 68.9	68.9 / 67.98	C 0.9		5'	7.0 / 68.5	8.5 / 68.22	C 0.3	
+60		2' B.	7.4 / 68.1	8.1 / 67.42	C 0.7		5'	8.0 / 67.5	67.5 / 67.73	F 0.2	
3+00		2 B	7.8 / 67.7	7.7 / 66.86	C 0.8		5'	8.2 / 67.3	7.3 / 67.23	C 0.1	
+40		1' B.	8.6 / 66.9	6.9 / 66.31	C 0.6		5'	8.8 / 66.7	66.7 / 66.74	Grade	
+80	72.43	5' B.	9.1 / 66.4	6.4 / 65.75	C 0.7		5'	9.3 / 66.2	6.2 / 66.24	Grade	
4+20		5	6.5 / 65.9	5.9 / 65.20	C 0.7	72.43	5'	7.0 / 65.4	5.4 / 65.74	F 0.3	
+60		5	6.8 / 65.6	5.6 / 64.84	C 0.8		5'	7.2 / 65.2	5.2 / 65.41	F 0.2	
5+00		5	6.9 / 65.5	5.5 / 64.84	C 0.7		5'	6.9 / 65.5	5.5 / 65.43	C 0.1	
+40		1' B	6.5 / 65.9	5.9 / 65.19	C 0.7		5'	6.0 / 66.4	6.4 / 65.79	C 0.6	
+70		1 in	5.7 / 66.7	6.7 / 65.58	C 1.1		5'	5.4 / 67.0	7.0 / 66.18	C 0.8	
6+00		1 in Cross	5.4 / 67.0	7.0 / 65.98	C 1.0		5'	5.1 / 67.3	7.3 / 66.58	C 0.7	

	72.4			S.	
			4.9	67.5	
+ 50		Line	67.5	66.64	C 0.9
			4.6	7.8	
7 + 00		Line	67.8	67.31	C 0.5
		1' B. Cross	4.6	7.8	
+ 50			67.8	67.97	F 0.2
			3.5	8.9	
8 + 00		3' in	68.9	68.64	C 0.3
			3.3	9.1	
+ 40		Line	69.1	68.90	C 0.2
= E.L. on S.			3.54		
+ 60.9			68.89	68.89	
= E.L. on N.					
+ 78.9					
		372.43			
Howard & Boundary.					
B.M. on N.W. = c.t.			3.60	368.83	

	72.4			N.	
			4.2	8.2	
5'			68.2	67.24	C 1.0
			3.4	9.0	
5'			69.0	67.90	C 1.1
			3.0	9.4	
5'			69.4	68.56	C 0.8
			2.6	9.8	
5			69.8	69.22	C 0.6
			1.9	70.5	
cross on line			70.5	69.81	C 0.7
			2.21		
			70.22	70.40	

Pave Grades on Jefferson - curb cots

51' - N.E. from cb. line Jefferson along Gutter of Rosecrans

T = 8.82

51' N. - Meet	5.96 3.76	3.76	
34'	5.23 3.59	3.71	F 0.12
17'	5.32 3.50	3.66	F 0.16
Int. cb. + Gut 0 400 =	5.21 3.61	3.61	
0+00 - W.L. Rosecrans			
+20 =		3.50	
+40 = Meet inlet			
+60	5.22 3.60	3.60	
+85	5.31 3.51	3.51	
1+10	5.39 3.43	3.43	
+28 = Alley	5.45 3.37	3.37	
= P.C. Rad.	5.41 3.41	3.41	
= end Ret.	5.07 3.75	3.75	
1+50	5.53 3.29	3.29	
+60	5.56 3.26	3.26	
+85	5.64 3.18	3.18	
2+05	5.70 3.12	3.12	
2+25 = end	5.77 3.05	3.05	

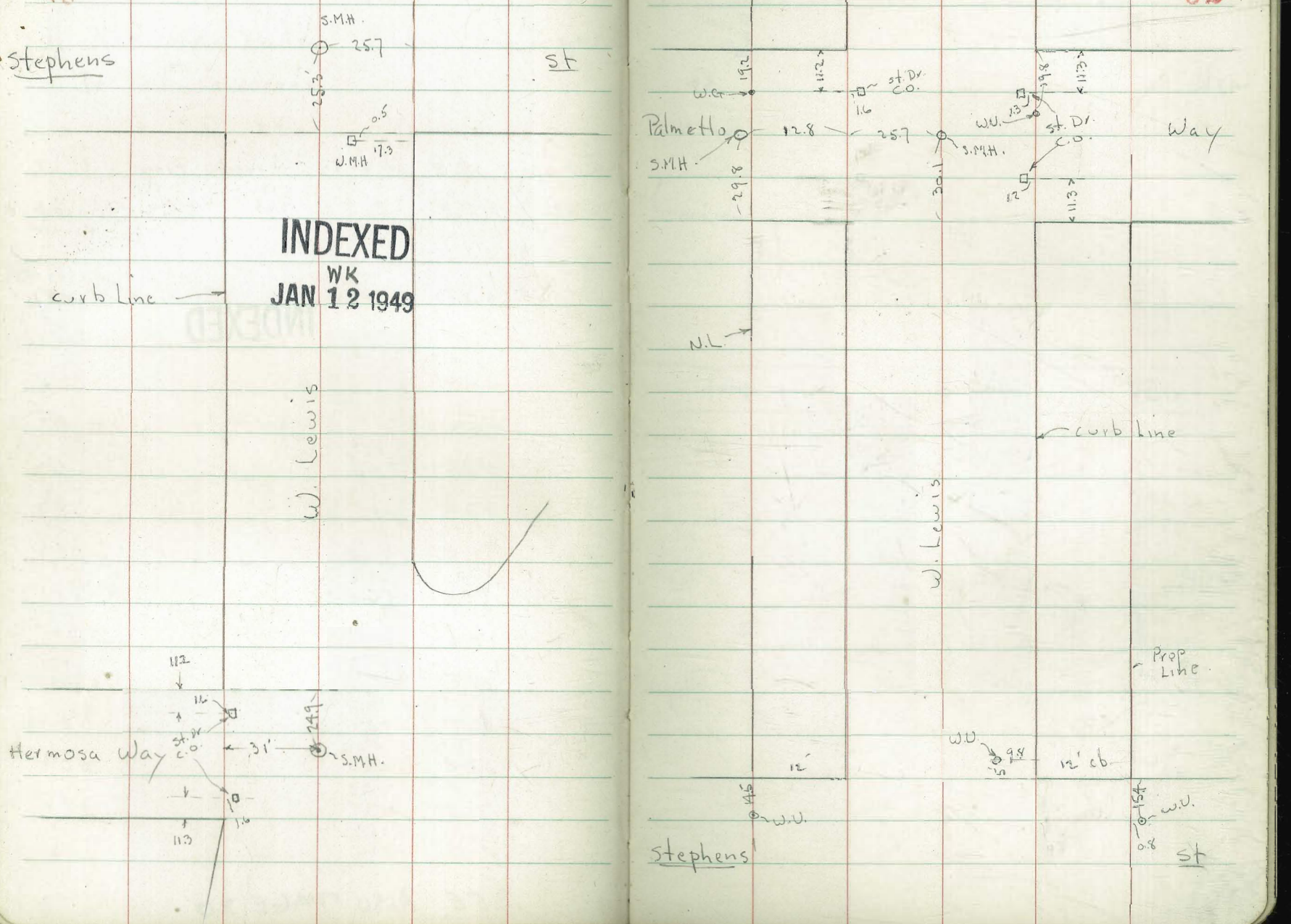
℄ = edge of Pave = 45' at from Prop.

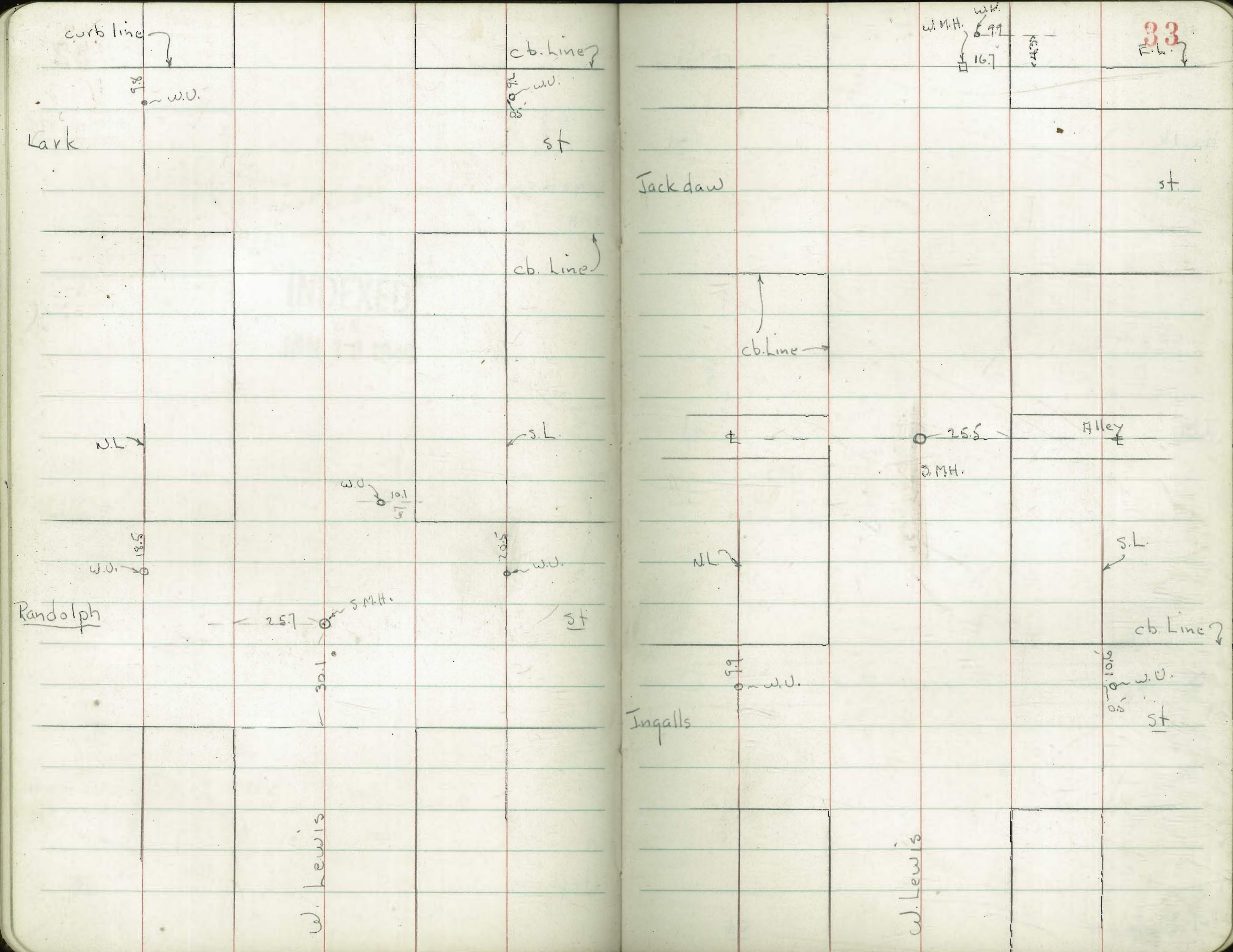
5.14
3.68 — 3.68 = stake + Header.

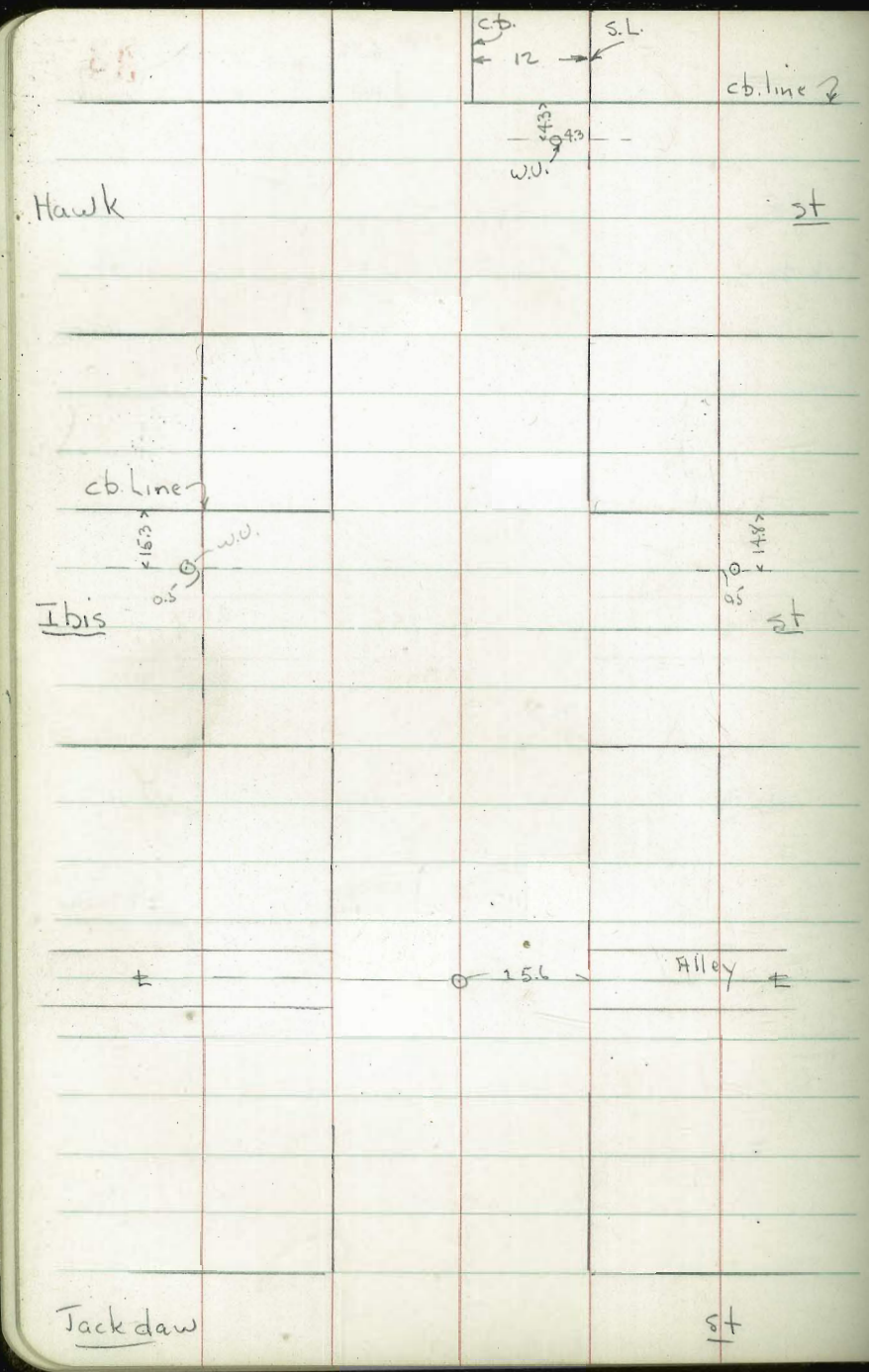
INDEXED

SEE ALSO PAGE 20

Tie out M.H's + Values in W.Lewis - Ft. Stockton to Hawk




curb line
W.U.
7.8
Lark
st
cb. Line
cb. Line
N.L.
S.L.
W.U.
10.1
18.5
W.U.
20.5
W.U.
Randolph
25.7
S.M.H.
30.1
st
W. Lewis
W.M.H.
9.9
16.7
F.L.
Jackdaw
st
cb.Line
Alley
25.5
S.M.H.
N.L.
S.L.
cb. Line
9.9
W.U.
W.U.
0.5
Ingalls
st
W. Lewis


c.p.
S.L.
12
cb. line
43
43
W.V.
Hawk
st
cb. Line
163
W.V.
0.5
Ibis
148
0.5
st
15.6
Alley
Jackdaw
st

Pave Grades - on Garnet - Ingraham to Kendall.

6-25-48-7.0.

4.86 68.12 63.26 = NW. 1/4 ct.

S.E. Ref Ingraham

E.C. = 6' S. of S.L.

61.64
6.48

61.72
6.40

61.83
6.29

62.01
6.11

P.C. = E.L. Ingraham = 0+00

Rake 25's

S. side
2 + 60 = Brk.

66.49
1.63

N.E. Ref. Ingraham

E.C. = 6' N. of N.L.

62.86
5.37

62.80
5.43

62.76
5.47

= 0+00

P.C. = E.L. Ingraham

62.75
5.37

5.48

0+25

62.87
5.25

0+50

63.21
4.91

Rake 25's

N. Side
2+60 = Brk.

66.45
1.67

5.00 73.94 68.94 = sw. 7 ct.

N.W. - Ret Jewell

W.L. Jewell = P.C. 68.50 5.44

68.52 5.42

68.54 5.40

E.C. 68.56 5.38

S.W. Ret Jewell

W.L. = P.C. 68.28 5.69

68.20 5.74

68.10 5.84

E.C. 67.96 5.98

N.E. Ret Jewell

E.L. Jewell 67.84 6.40 5.74
45°2 =
P.C.

P.C. 67.56 5.72

67.61 5.67

end. 68.13 5.18 67.75 5.53

E.C. 67.93 5.35

S.E. Ret. - Jewell

E.C. = C.S. 67.26 6.68

67.34 6.60

67.33 6.61

E.L.
P.C. = 0+00 67.29 6.65

S. Side
2+50 = Ditch. 66.19 7.75

N. Side 66.44 7.50

	4.73 71.04		66.31	N.E. 7'ct.	
N.W. Ret Kendall					
W.L. = 7.52		4.99	65.89	5.15	
= P.C.			65.87		
			5.00		
			65.90		
			4.97		
			66.00		
			4.87		
= N.L.			66.08		
			4.79		
S.W. Ret. Kendall					
E.C. = 6's			64.05	6.99	
			64.43	6.61	
			64.65	6.39	
			64.92	6.12	
			65.24	5.80	
			65.47	5.57	
N.E. Ret. Kendall					
N.L.				66.20	4.67
				66.05	4.82
				65.77	5.10
= P.C.			5.30	65.57	5.47
2' = gutter			65.55		
= E.L.			5.49	65.57	5.47
				5.47	
S.E. Ret. Kendall					
E.C. = 10's				63.93	6.94
				64.33	6.54
				64.58	6.29
= P.C. = 0+00 = E.L.			6.08	64.79	6.25
0+15				65.13	5.91
0+30				65.30	5.74
2+50 = Brk. = S. side				65.67	5.37
" " " N. "				66.00	5.04

4.39 70.93

S.W. Ret - Morrell

P.C. = W.L.

E.C. = 6'S

N.W. Ret - Morrell

P.C = W.L.

E.C. = 6'N.

66.54	N.W. 7' c.t.
65.56 ~~6.16~~	
5.37	
65.42	
5.51	
65.31	
5.62	
65.10	
5.83	
65.85	
5.08	
65.84	
5.09	
65.94	
4.99	
66.10	
4.83	

Curb Grades on Bramson Place

S.W. El Cajon + 33'd

	1.11	375.36		374.25	
33'd	$\bar{x}$ = 75.33			South	
0+00 = W.L.			5.12 / 70.24	70.20	
+20			5.12 / 70.21	70.21 (5.12)	G
+40			5.36 / 69.97	70.17 (5.16)	F 0.20
+60			5.58 / 69.75	70.05 (5.28)	F 0.30
+80			5.75 / 69.58	69.88 (5.48)	F 0.30
1+00 = Brk			5.99 / 69.34	69.64 (5.69)	F 0.30
4+20 = Brk.		72.29	10.33 / 65.00	65.20 (10.13)	F 0.20
+40			7.52 / 64.77	64.97 (7.32)	F 0.20
+60 V.C.			7.85 / 64.44	64.84	F 0.40
+80			7.89 / 64.40	64.80	F 0.40
5+00			7.85 / 64.44	64.84	F 0.40
+20			7.32 / 64.97	64.97	✓
+40 = Brk.			7.20 / 65.09	65.19	F 0.10
+70			6.71 / 65.58	65.58	✓
6+00 = Brk.			6.31 / 65.98	65.98	✓

		375.36			
				North	
0+00			4.59 / 70.77	370.90	
+20			4.69 / 70.67	70.67 (4.69)	
+50			5.53 / 69.83	70.33 (5.03)	F 0.50
+75			5.84 / 69.52	70.02 (5.34)	F 0.50
1+00			6.15 / 69.21	69.71 (5.65)	F 0.50
4+20			9.92 / 65.44	65.74 (9.62)	F 0.30
			7.17 / 65.13	65.53 (6.77)	F 0.40
			7.19	65.41 (6.89)	F 0.30
			7.52 / 64.78	65.38	F 0.60
			7.37 / 64.93	65.43	F 0.50
			7.13 / 65.17	65.57	F 0.40
5+40			6.81 / 65.49	65.79 (6.51)	F 0.30
Rake					

72.29

S

8+00		4.35 / 67.94	68.64 (3.65)	F 0.70
8+20		3.89 / 68.40	68.80 (3.49)	F 0.40
8+40		3.69 / 68.60	68.90 (3.39)	F 0.30
8+64.9	= E.L. =	Cross 3' Back 3.40 / 68.89	68.89	Grade

N.

T = 75.53

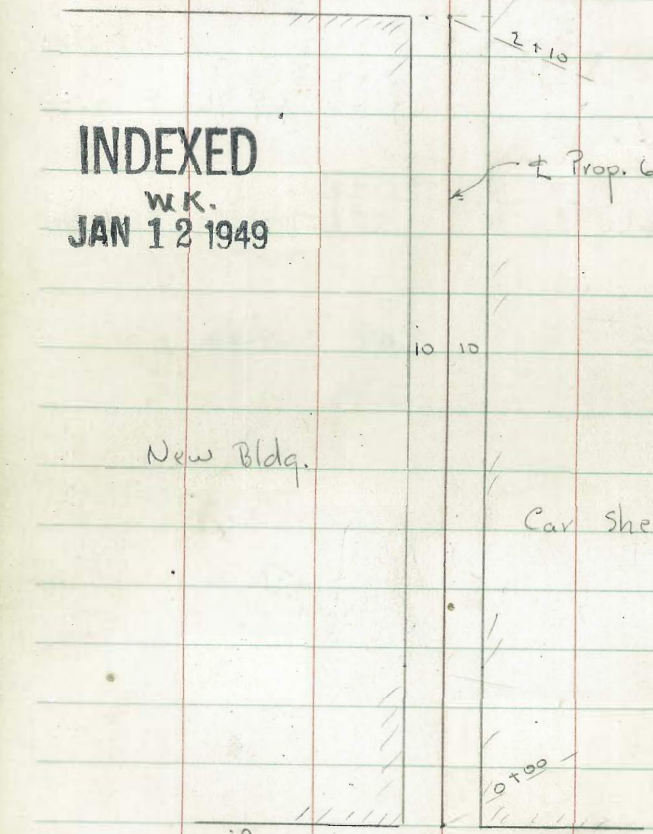
8+20		3.50 / 68.80	69.50 (80)	F 0.70
8+50		5.87 / 69.66	69.96	F 0.30
= 8+75.6	= E.L.	5.48 / 70.05	70.35 (8)	F 0.30
		3.47	368.83	

"A" St

Grades for 6" Sewer in 20' Alley Bet Bldg's at city Shops

7-6-48

W.O. 60127



0-18	1.77	68.29		66.52	

Top of 6" pipe = 58.70 - 58.30 = Grade at 0-16

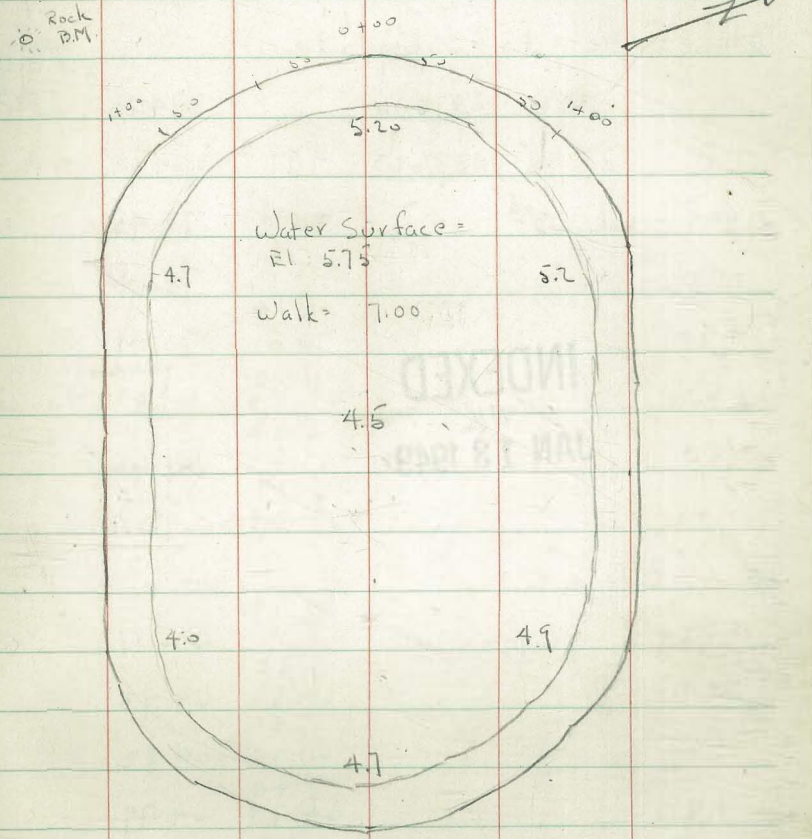
0+00	4.68	63.20 58.52	5.09 63.20	63.2 58.3	C 4.90
+35	4.55	63.55 59.00	4.77 63.55	63.55 58.81	C 4.74
+70	4.11	63.59 59.48	4.70 63.59	63.59 59.32	C 4.27
1+05	4.47	64.43 59.96	3.86 64.43	64.43 59.84	4.59
+40	3.83	64.27 60.44	4.02 64.27	64.27 60.36	3.91
+75	3.87	64.79 60.92	3.50 64.79	64.79 60.87	3.92
2+10 = D.E.		61.40	3.26 65.03	65.03 61.4	3.63

Assum. Elev.

3.61 9.99 6.38 - Rock B.M.

Paint Crosses 3' Back of El. 7.00 or edge if Low. - Fills to 7.00 approx. 50 apart along outside of A.C. Track

Fly Casting Pool - in Park - by Mun. Swiming Pool



W.O. 25001

7-6-48
7.0.

Pave Stakes - Bramson Place

Stakes in ℄ - Roll type curbs - no cuts

Stakes set to Subgrade

	0.90	375.15		374.25	SW. ET Cajon +33rd
T.P.	7.05	372.23	9.97	365.18	
0+00 - W.L. 33rd			4.74 / 70.41	70.45 = Pave	
+20			5.01 / 70.14	70.14	
+40			5.14 / 70.01	70.01	
+60			5.32 / 69.83	69.83	
+80			5.53 / 69.62	69.62	
1+00			5.77 / 69.38	69.38	
30' - Rake					
4+20		X = 72.23	9.98 / 65.17	65.17	
+40			7.30 / 64.93	64.93	
+60			7.41 / 64.82	64.82	
+80			7.44 / 64.79	64.79	
5+00			7.39 / 64.84	64.84	
+20			7.26 / 64.97	64.97	
+40			7.04 / 65.19	65.19	
+70 - Rake					
6+00			6.24 / 65.99	65.99	
25's - Rake					

7-23-48

W.O. 31356 72.23 7.0. 44

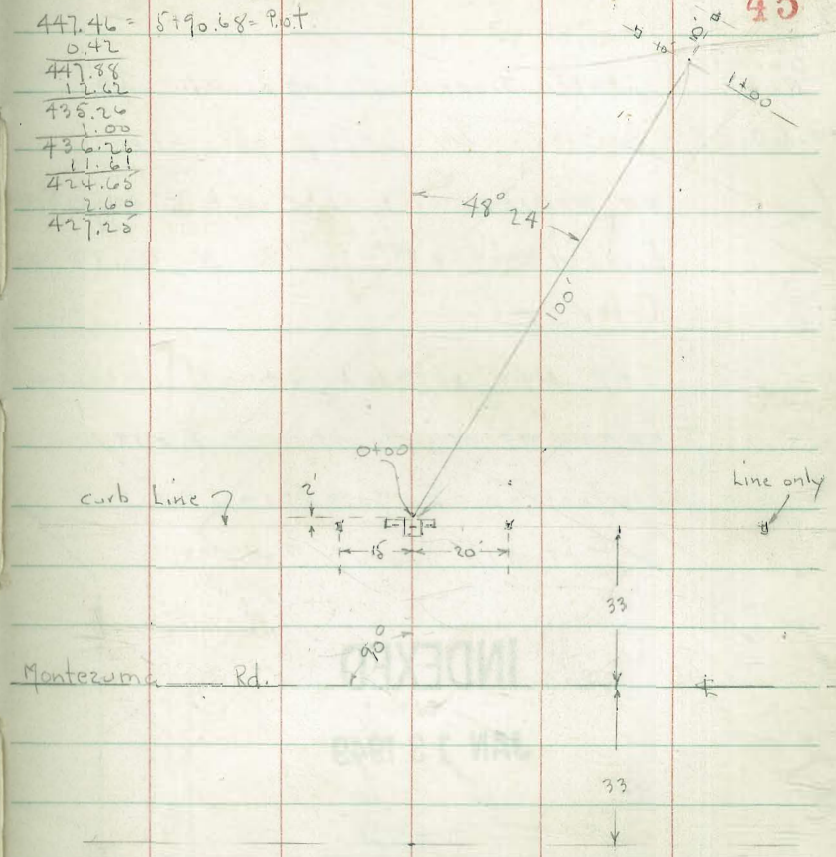
	3.59		
8+00	68.64	68.64	
	3.38		
+20	68.85	68.85	
	3.18		
+40	69.05	69.05	
= Pave		69.68 ✓	
Howard & Boundary NW. ct.	3.41	368.82 ✓	368.83

Grades on Culvert # 1 - 7+00

Montezuma Rd.

			℄ Inlet Top cb.	
on cb Line 15' W. of ℄ Inlet	T=32.36	4.80 31.46	446.34	F 14.88
20' E. of ℄ Inlet	T=427.25	6.59 20.66	46.34	F 25.68

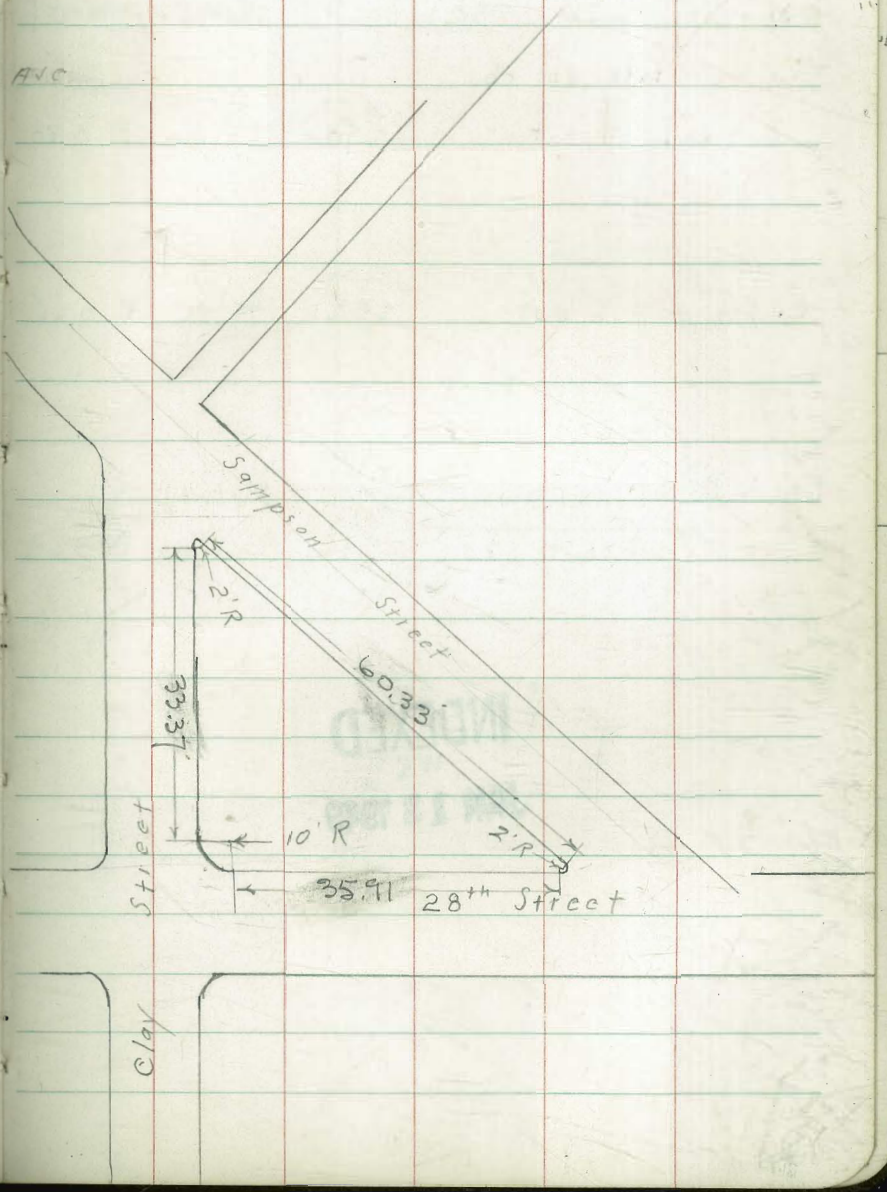
447.46 = 5+90.68 = P.O.T.
0.42
447.88
1.62
436.26
1.00
436.26
11.61
424.65
2.60
427.25



8-26-48
Hardin
Decker
Rohr

W.O. 60135

Stake Traffic Island at 28th St. & Clay & Sampson Sts.
on projections E. curb Sampson, Ave
E. curb of 28th st & N. curb of
Clay Ave
set Pts. 2' Back at all intersect-
ions, at Midpoint on East
Projection of Sampson St.
& set all Radius Points

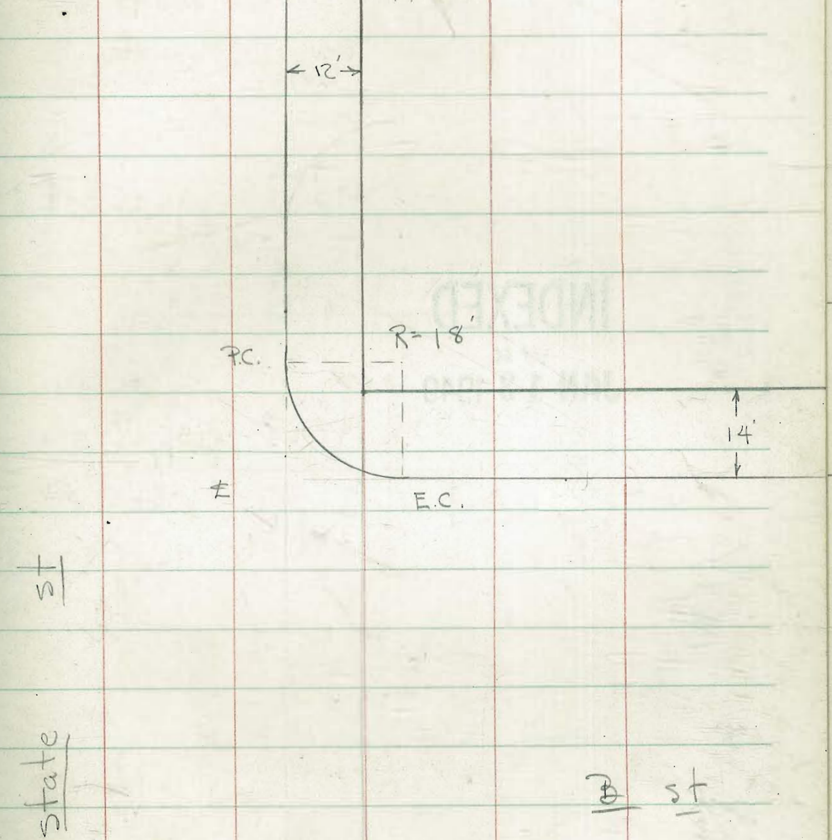


Grades for Return - State & B - N.E. Cor.

B.M.	6.75	33.21		26.46	SW. B.P. State & B.
P.C. on State st. cb.					
Roof nail	3' out.		4.01 29.20	30.00	F 0.80
℄ Ret.	6' out.		4.00 29.21	29.86	F 0.65
EC. = B. St cb.					
	3' out.		3.85 29.36	30.00	F 0.64

W.O. 60135
F.O. - 9-7-48

Stake Return
N.E. Cor. State & B



Stakes for School Bldg. Moved in on Playground - Encanto.

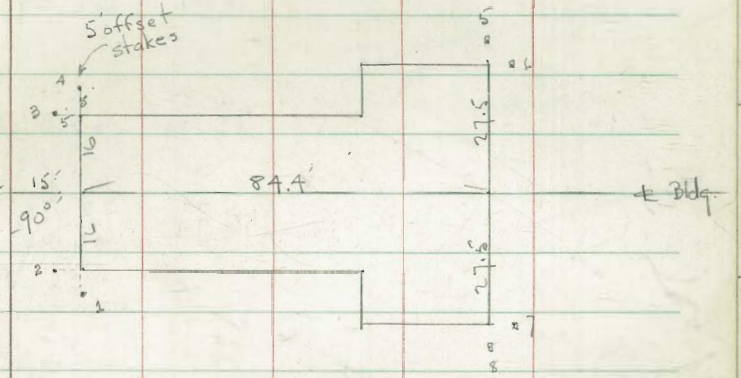
W.O. 60318

9-13-48

J.O.

B.M.	0.27 / 2.41	312.51 / 303.34	11.58	312.24 / 300.93
			Elev. Stake	Floor Elev.

Stake #				
2			9.66 / 293.68	296.25 / 93.68 F. 2.57
3			7.71 / 98.63	96.25 / 8.63 F 0.62
6			9.79 / 93.55	96.25 / 3.55 F 2.70
7			9.90 / 93.44	96.25 / 3.44 F 2.81

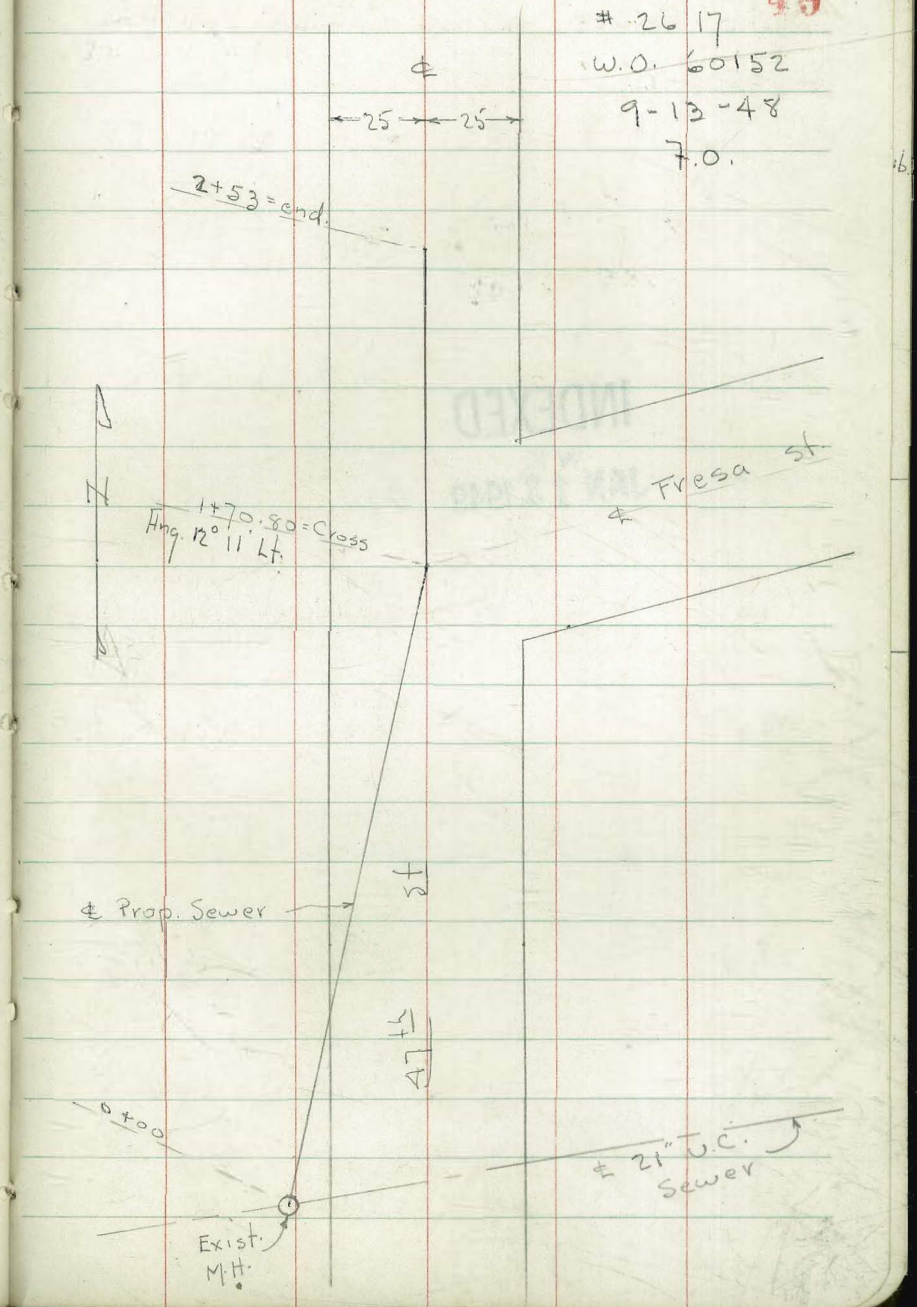


Stakes for Prop. 10" Sewer along 47th at Fresa st. - B. 1673 - P. 15 + Drw. 3321 - B

℄ Exist M.H. 0+00 =		10.15 / 10.00	74.71 / 70.00 / 60.61	C 9.39
+35 = 5' E. on wall		8.06 / 72.09	62.09	C 10.00
+70 = 6' E. Cross		4.82 / 75.33	75.33 / 63.57	C 11.76
1+05 = "		5.41 / 74.74	74.74 / 65.05	C 9.69
+40 = "		5.74 / 74.41	74.41 / 66.53	C 7.88
MH # 1 1+70.80	6+12' E	5.47 / 74.68	74.68 / 67.84	C 6.84
2+11.90	6' E. Cross	4.36 / 75.79	75.79 / 69.58	C 6.21
2+53 = end	"	2.41 / 77.74	77.74 / 71.32	C 6.42

SEE ALSO PAGE 58-62

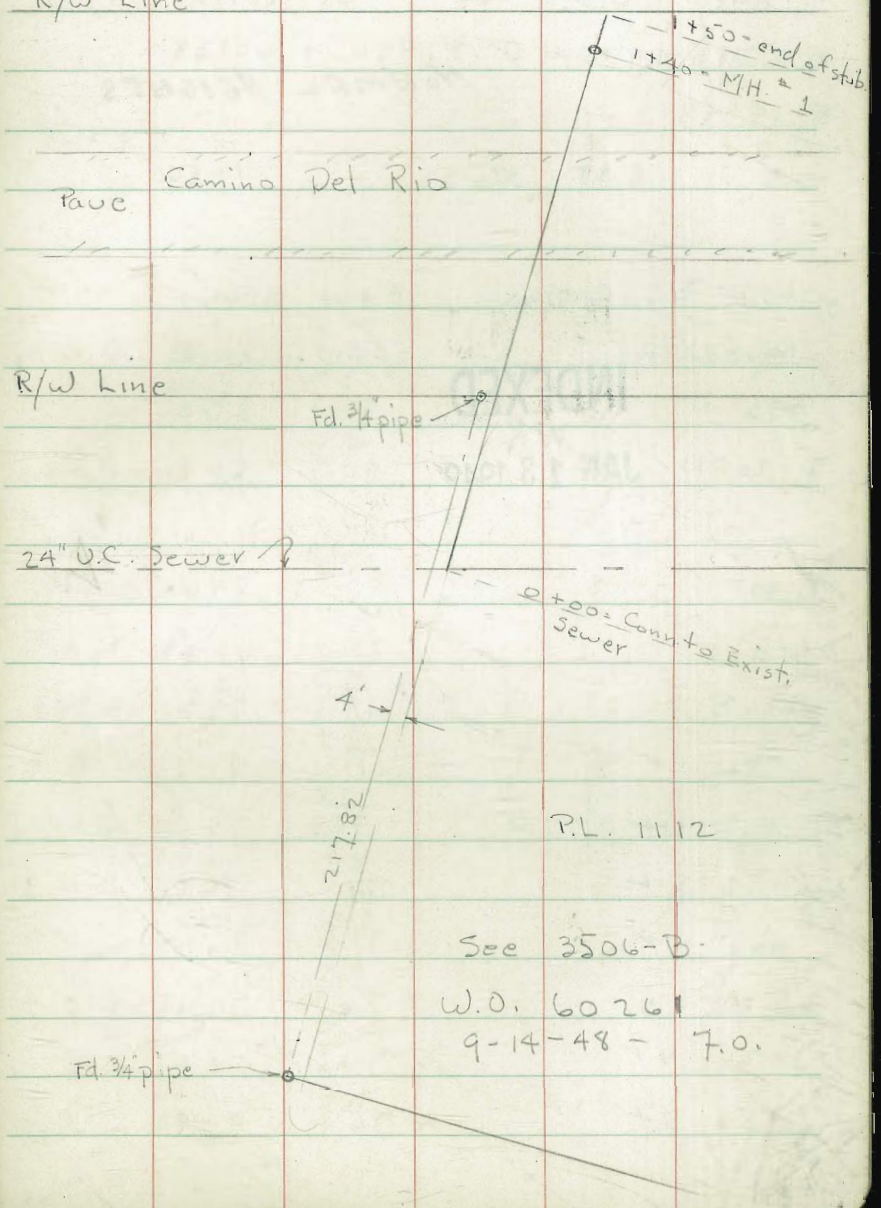
2617
W.O. 60152
9-13-48
T.O.



Stake Sewer across Camino Del Rio

Per 3506-B

	0.94	34.21		33.37	□ in N.W. Culvert opp. Ser. Sta. Turns not shown
Conn. to 24" Sewer 0+00 =		10.46 23.85 = Top pipe	7.66 26.65	6.65 22.80	C 3.85
+25			7.58 26.73	6.73 22.92	C 3.81
+50			6.20 28.11	8.11 23.05	C 5.06
+75			4.90 29.41	9.41 23.17	C 6.24
+95			3.43 30.88	30.88 23.27	C. 7.61
1+05			3.29 31.02	31.02 23.32	C 7.70
+25			3.91 30.40	30.40 23.42	C 6.98
M.H. ℄ 1 +40 =			5.79 28.52	8.52 23.50	C 5.02
+50 = end of stub.			6.15 28.16	8.16 23.55	C 4.61
Set B.M. spike in Pole By Pipe on S.L.			5.49	28.82	



Stakes for Water Meters & Services in "T" Alley - Block 44 - See Sketch P. 1842 & 7285-L - W.O. 31496 & 60138

NORMAL HEIGHTS

9-14-48

7.0.	5.99	385.55	379.56	℄ Hub.

0+00 = E.L. Cherokee - E & W. Alley

+46 - N	2.2 / 83.35	3.5 / 83.05	C 0.3
+70 - N	3.2 / 82.35	3.5 / 82.05	C 0.3
1+20 - N	5.2 / 80.3	80.30	∞

Sewer ① 1+40 =	5.14 / 80.41	80.41	To F.L.
		74.60	C 5.81
1+62 - S	6.5 / 79.0	79.0 / 78.53	C 0.5
1+67 - N	6.4 / 79.1	9.1 / 78.34	C 0.8
+91 - S ↙	7.4 / 78.1	8.1 / 77.74	C 0.4
2+27 - N ↙	7.8 / 77.7	7.7 / 77.33	C 0.4
+52 - S ↙	8.4 / 77.1	7.1 / 76.81	C 0.3
+65 - N ↙	8.3 / 77.2	7.2 / 76.94	C 0.3
3+23 - S ↙	9.2 / 76.3	6.3 / 76.16	C 0.1
3+24 - N ↙	8.7 / 76.8	6.8 / 76.41	C 0.4
3+56 - S ↙	9.4 / 76.15	6.1 / 75.86	C 0.3
3+93 - N ↙	9.5 / 76.0	6.0 / 75.77	C 0.3
4+24 - N ↙	9.9 / 75.6	5.6 / 75.37	C 0.3
4+34 - S ↙	9.5 / 76.0	6.0 / 74.87	C 1.2
+61 - N ↙	10.6 / 75.0	5.0 / 74.43	C 0.6

N & S Alley - 0+00 = S.L. E & W. Alley

0+26 - W	6.4 / 79.1	9.1 / 79.72	F 0.6
+70 - W	6.5 / 79.0	9.0 / 79.91	F 0.9
1+20 - W	5.7 / 79.8	79.8 / 80.00	F 0.2
1+57 - W	5.2 / 80.3	80.3 / 79.82	C 0.5

Grades for 4" Water - 5' W. of E.L. of N. & S. Alley - 0+00 = S.L. - E. & W. Alley

0+20	6.6 / 78.9	76.9 / 76.0	C 2.9
+70	6.9 / 78.6	8.6 / 76.0	C 2.6
1+20	6.0 / 79.5	9.5 / 76.2	C 3.3
1+60	6.0 / 79.5	9.5 / 76.0	C 3.5
2+00	6.2 / 79.4	9.7 / 75.8	C 3.6

Meet gates at Both ends.

Stakes for Sewer Laterals on Collier Ave. - E. of Mt. View. - 6931 - L

2.54 393.91 391.37 SW Collier + Mt. View.

Laterals on N. Side

0+00 = Prop Cor. F.L. at Prop.

2+45.9 = ① 8.13 / 85.78 — 85.78 / 376.66 — C 9.12

π = 69.47

4+95.5 = ② 0.24 / 69.23 — 9.23 / 60.91 — C 8.32

INDEXED WK JAN 13 1949

5+95.5 = ③ 9.08 / 60.39 — 60.39 / 54.62 — 5.77

South Side

0+00 = Prop. Cor. (not opp. N. side)

π = 81.66

3+50.81 = ④ 9.44 / 72.22 — 72.22 / 67.19 — C 5.03

2625

W.O. 31326

9-15-48

70.

391.37
2.57
393.91
12.63
381.28
0.38
381.66
13.07
368.59
0.88
369.47

LOT 39 HORTON'S PURCHASE
EX-MISSION LANDS OF SAN DIEGO. 54

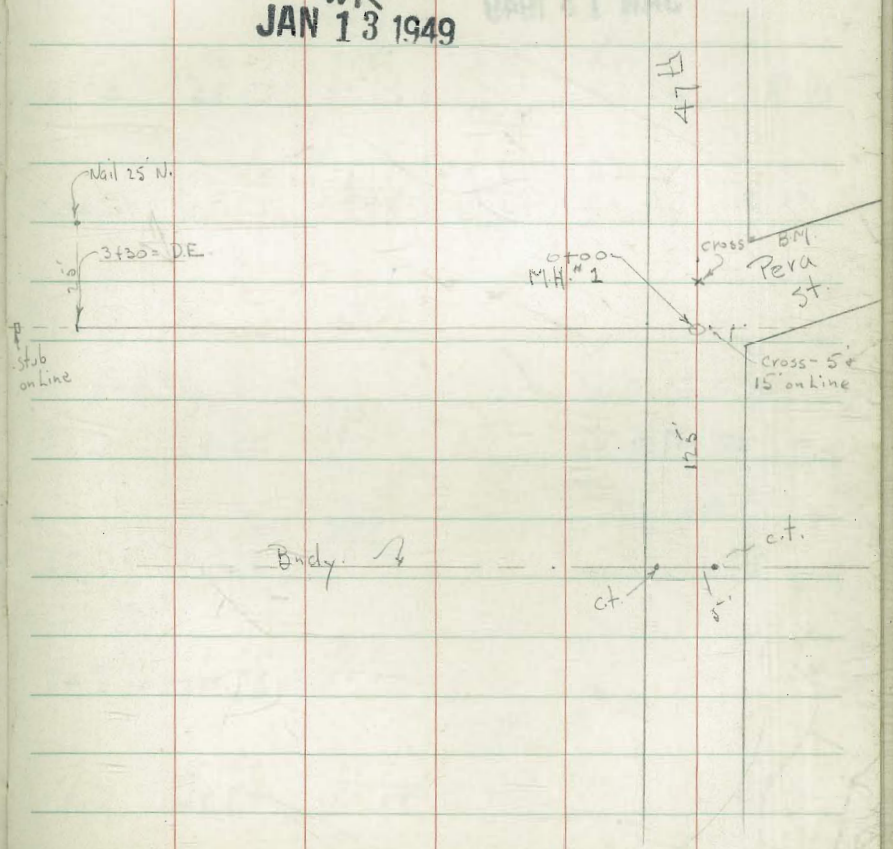
Grades for Sewer - W. of Pera + 47 ±

W.O. 31412 - 9-21-48 - 7.0.

	96.78			
			Grade	cut
M.H. #1 x 5' E		13.43	83.35	
0+00 =		83.35	76.71	6.64
		11.85	84.93	
+33		84.93	78.69	6.24
		8.40	88.38	
+66		88.38	80.67	7.71
		5.89	90.89	
+99		90.89	82.65	8.24
		3.76	93.02	
1+32		93.02	84.63	8.39
		10.2	95.76	
+65		95.76	86.61	9.15
	103.85			
		5.57	98.28	
+98		98.28	88.59	9.69
		3.83	00.02	
2+31		100.02	90.57	9.45
		2.47	01.38	
+64		101.38	92.55	8.83
		1.71	02.14	
+97		102.14	94.53	7.61
= D.E.		1.16	02.69	
3+30		102.69	96.51	6.18

83.63 = Cross =
13.15
96.78
0.56
96.22
7.63
103.85

12.11 84.67 - spk. in Pole SW.



Grades for Sewer 4.5' N. of S.L. Market. W. of 47th

				cut
	132.96			
℄ M.H.#5 0+00 =		11.96 / 21.00	21.00 / 114.45	6.55
+50		9.30 / 23.66	23.66 / 118.85	4.81
1~	145.43	3.93 / 29.03	29.03 / 123.25	5.78
+50		11.12 / 34.31	34.31 / 27.65	6.66
2~		6.77 / 38.66	38.66 / 32.05	6.61
2+40 = MH-22 (=0+00)		4.47 / 40.96	40.96 / 35.57	5.39
+50		3.38 / 42.05	42.05 / 36.32	5.73
1~		2.89 / 42.54	42.54 / 37.07	5.47
+50		2.40 / 43.03	43.03 / 37.82	5.21

	145.43			
2+00		1.96 / 43.47	43.47 / 38.57	4.90
+50	149.68	1.41 / 44.02	44.02 / 39.32	4.70
3+00 = M.H.#23		4.34 / 45.34	45.34 / 40.07	5.27
+27		3.31 / 46.37	46.37 / 41.26	5.11
3+54 = D.E.		2.07 / 47.61	47.61 / 42.45	5.16

121.15 = ℄ Ld c.t.
11.81
132.96
0.79
132.17
13.26
145.43
2.15
143.28
6.40
149.68
2.05
147.63 = BM

W.O. 31412
9-21-48
F.O.

Grades for Sewer - N. of Market & W. of 47th

133.14

0+00 - M.H. # 6 Nail & E.		10.62 / 22.52	22.52 / 11.94	4.58
+50		8.60 / 24.54	24.54 / 19.44	5.10
1+		7.69 / 25.45	25.45 / 20.94	4.51
+50		5.76 / 27.38	27.38 / 22.44	4.94
1+96.35 = M.H. 24 =0+00		4.34 / 28.80	28.80 / 23.83	4.97
+50		2.80 / 30.34	30.34 / 25.33	5.01
1+	146.05	0.23 / 32.91	32.91 / 26.83	6.08
+50		12.01 / 34.04	34.04 / 28.33	5.71
1+96.0 = M.H. 25 = T.E.		7.67 / 38.38	38.38 / 29.71	8.67
=0+00 To W.			38.38 / 29.84	8.54

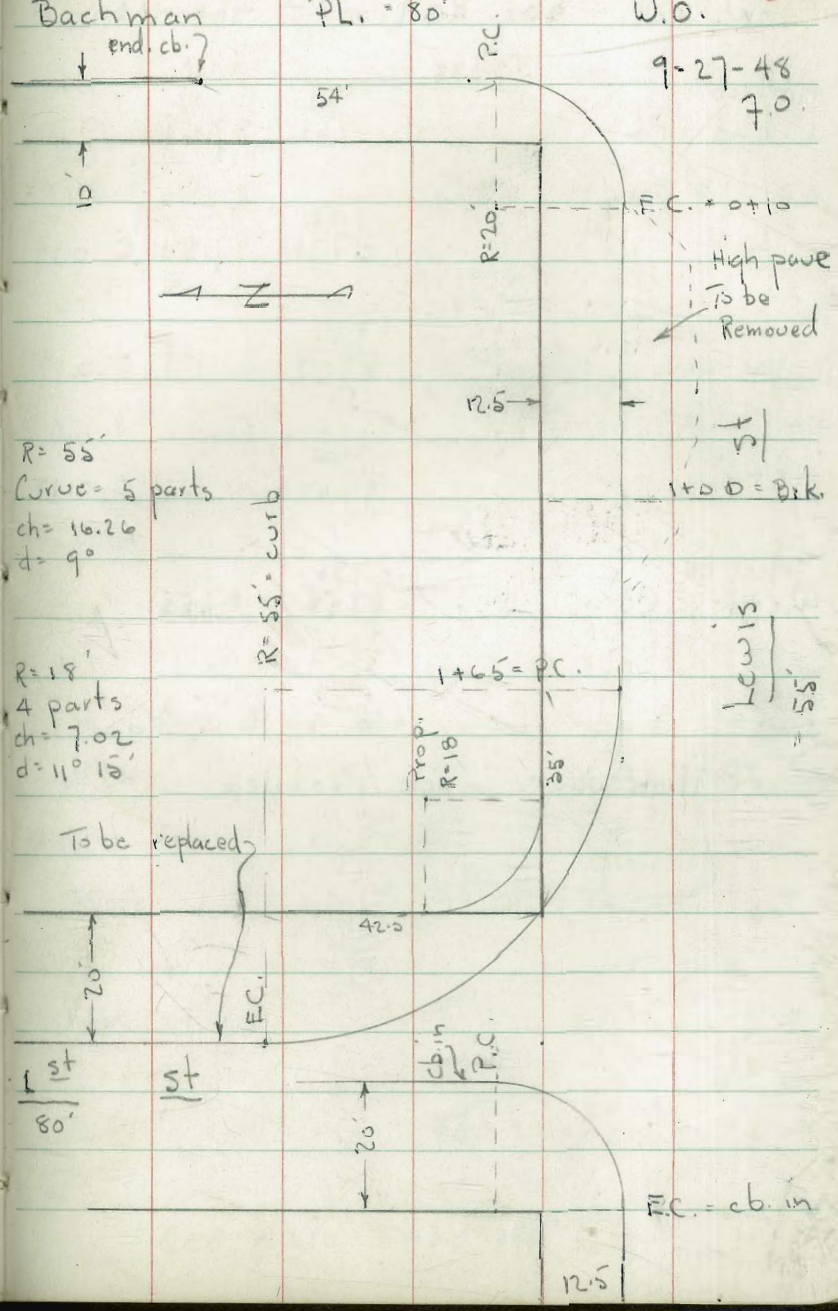
0+40	155.43	1.52 / 44.53	44.53 / 34.64	9.89
0+80 = Brk		7.97 / 47.46	47.46 / 39.44	8.02
1+15		7.35 / 48.08	48.08 / 40.49	7.59
1+50		5.50 / 49.93	49.93 / 41.54	8.39
1+85		3.27 / 52.16	52.16 / 42.59	9.57
2+07 = P.E.		1.49 / 53.94	53.94 / 43.25	10.69

121.15 = c.t.
11.99
133.14
0.23
132.91
13.14
146.05
1.52
144.53
10.90
155.43
7.79
147.64 = B.M. P. 55

Grade Stakes for New cb. along N. side of Lewis - 1st to Bachman

B.M.	6.91	294.88		294.88	SE. B.P. 1st & Lewis
on W. side Bachman Exist. cb. 54 N. of P.C. Stakes 3' Back				291.56	
Midway				92.08	F 1.05
P.C. - 20' Rad.			2.82 / 92.06	92.60	F 0.54
1/4			2.83 / 92.05	92.62	F 0.57
1/2			2.94 / 91.94	92.60	F 0.66
3/4			2.90 / 91.98	92.50	F 0.52
E.C. = 0+10			3.24 / 91.64	92.40	F 0.76
+55'			3.63 / 91.26	91.57	F 0.32
1+00 = B.k.			4.21 / 90.67	90.75	F 0.08
+30			4.70 / 90.18	90.22	F 0.04
+65 = P.C. 55' Rad.			5.43 / 89.45	89.61	F 0.16
1st of 5 parts			5.72 / 89.16	89.43	F 0.27
2			5.56 / 89.32	89.32	Grade
3			5.41 / 89.47	89.30	C 0.17
4			5.41 / 89.47	89.32	C 0.15
5 = E.C.			5.29 / 89.59	89.45	C 0.14
42.5' N. of N.L.					

Bachman PL. = 80' W.O. 9-27-48 7.0



N.W. Ret. - 20' Rad. 1st + Lewis

294.88

Meet cb. N. End - P.C.	7.27 / 87.61	87.61	
3' Back			
1/4	7.17 / 57.71	87.52	C 0.19
1/2 - cross	7.21 / 87.67		C 0.17
3/4	7.20 / 87.68		C 0.18
Meet cb W. end - E.C.	7.33 / 87.55	87.55	

Raised Grade from 1+00 to E. to meet High pave. See Profiles

Grades for Sewer By school - M.H. 13 to 16 58

	8.94	202.21	193.27
13' E. of W.L. 47th 0+00 = M.H. 13' stakes 5' Rt.	12.04 / 90.17	90.17 / 183.37	C 6.80
+50	11.45 / 90.76	90.76 / 84.06	6.70
1	10.07 / 92.14	92.14 / 84.75	7.39
+50	9.45 / 92.76	92.76 / 85.44	7.32
2	9.33 / 92.88	92.88 / 86.13	6.75
+50	8.90 / 93.31	93.31 / 86.82	6.49
+83.5	8.60 / 93.61	93.61 / 87.29	6.32
2+17 = M.H. 14 0+00	8.25 / 93.96	93.96 / 87.76	=5'S 6.20 5'E 6.21
+50	7.28 / 94.93	94.93 / 88.45	6.48

SEE ALSO PAGE 49

		202.21									
1~			5.49 / 96.72	96.72 / 89.14	7.58	2+50			2.60 / 10.87	10.87 / 93.46	17.41
+50			4.53 / 97.68	97.68 / 89.83	7.85	3~			3.30 / 10.17	10.17 / 93.67	16.50
2~			2.79 / 99.42	99.42 / 90.52	8.90	Hng 89°32'30" Rt. 3+39.49 = MH 16		5' W. Nail	3.85 / 09.62	09.62 / 93.80	15.82
+50			1.24 / 00.97	00.97 / 91.21	9.76	+50			4.44 / 09.03	09.03 / 94.00	15.03
	12.50	213.47	1.24	200.97							
3~			10.34 / 03.13	03.13 / 91.90	11.23	1~			5.40 / 08.07	08.07 / 94.20	13.87
Hng. 0°31'30" Rt. 3+39.48 - MH 15			8.77 / 04.70	04.70 / 92.44	12.26	+50			6.92 / 06.55	06.55 / 94.40	12.15
							2.26	209.20	6.53	206.94	
+50			6.95 / 06.52	06.52 / 92.64	13.88	2~			3.89 / 05.31	05.31 / 94.60	10.71
1~			5.29 / 08.18	08.18 / 92.85	15.33	+50			4.64 / 04.56	04.56 / 94.80	9.76
+50			3.66 / 09.81	09.81 / 93.05	16.76	3~			5.28 / 03.92	03.92 / 95.00	8.72
2~			2.82 / 10.65	10.65 / 93.26	17.39	+50			5.62 / 03.58	03.58 / 95.20	8.38

Grades for Sewer along & 47th± Pera - to N.

		209.29			
4+00			5.80 / 03.40	03.40 / 95.40	8.00
4+24.04 = MH. 17		=5'S	6.10 / 03.10	03.10 / 95.50	7.60
check B.M. Top Hyd. 49th± & A			0.90	208.30	209.29
MH. #21 to D.E. - S. of Federal - on 49th±					
	1.02	226.39		225.37	
0+00 = ± MH 21			10.97 / 5.42	15.42 / 206.00	9.42
Nails 5' Rt.					
+42			7.95 / 18.44	18.44 / 206.60	11.84
+84 DE.		=5'E.	4.88 / 21.51	21.51 / 207.21	14.30

	5.66	90.33		84.67 =	Pera spk. in Pole
Beg. Cont. 0+00 =				71.32	
+25			11.39 / 78.94	78.94 / 72.38	6.56
+75			9.05 / 81.28	81.28 / 74.50	6.78
1+25 = M.H. 1 =0+00			6.98 / 83.35	83.35 / 76.61	6.74
+50			6.27 / 84.06	84.06 / 77.51	6.55
1 ~			5.54 / 84.79	84.79 / 78.41	6.38
+50			4.81 / 85.52	85.52 / 79.31	6.21
2 ~			4.12 / 86.21	86.21 / 80.21	6.00
+50			3.44 / 86.89	86.89 / 81.11	5.78

SEE ALSO PAGE #9

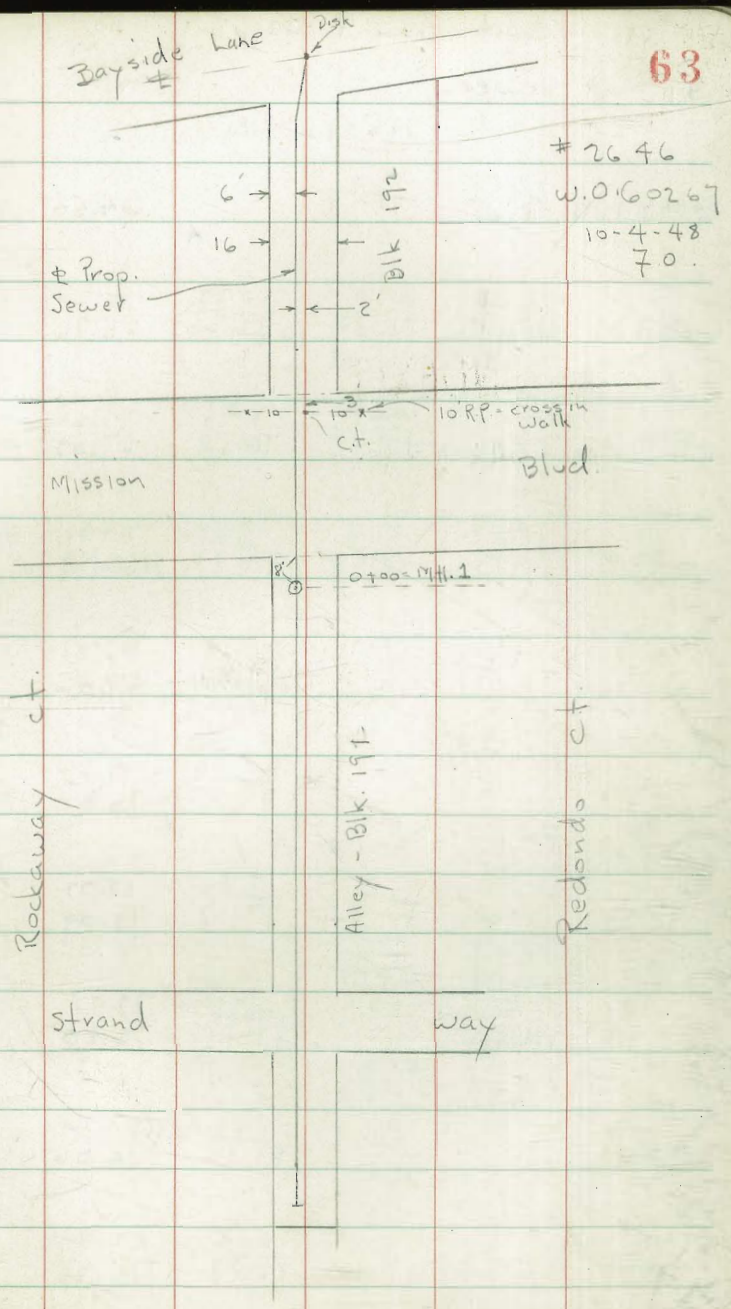
		90.33			
3+00			2.34 87.99	87.99 82.01	5.98
+50			0.50 89.83	89.83 82.91	6.92
		102.84			
3+72 = MH #2 =0+00		To S -To N.	11.85 90.99	90.99 83.31 83.41	7.68 7.58
+50			8.31 94.53	94.53 87.11	7.42
1~			4.16 98.68	98.68 90.82	7.86
		114.64			
+50			11.74 02.90	02.90 94.53	8.37
2~			7.50 07.14	07.14 98.24	8.90
+50			3.85 10.99	10.99 101.95	8.84
3~			0.87 13.77	13.77 05.66	8.11
		124.52			
+30			9.33 15.19	15.19 07.88	7.31

		124.52			
3+51.89 = MH. 3 =0+00			8.41 16.11	16.11 109.50	6.61
+50			6.68 17.84	17.84 10.05	7.79
1~			5.56 18.96	18.96 10.60	8.36
+50			5.26 19.26	19.26 11.15	8.11
2~			5.00 19.52	19.52 11.70	7.82
2+38.01 = M.H. 4 =0+00			4.82 19.70	19.70 12.12	7.58
+50			4.40 20.12	20.12 12.67	7.45
1~			4.18 20.34	20.34 13.22	7.12
+50			3.90 20.62	20.62 13.77	6.85
+80			3.70 20.82	20.82 14.10	6.72

Stakes for Sewer in Alley - Blk. 191 & 192

	5.77	4.39	- 1.38	Disk - ℄ Alley B. 1771 - P. 16
0+00 = M.H. # 1	4.23 +0.16	0.16	- 3.60	e 3.76
+20	4.88 -0.49	-0.49	- 3.76	c 3.27
+35	4.53 -0.14	-0.14	-3.88	3.74
= Ely. 4 Dio. strip +50 Mission Blvd.	3.84 +0.55	+0.55	-4.00	4.55
+62	4.71 -0.32	-0.32	-4.10	3.78
+80	5.21 -0.82	-0.82	-4.24	3.42
1+10	5.28 -0.89	-0.89	-4.48	3.59
+30	4.30 -0.28	-0.28	-4.64	4.36
+50	4.49 -0.47	-0.47	-4.80	4.33

cont. Pr 69



Cont. from P. 62

47th St. Sewer

		192.49			
0+00 = M.H. 9				64.50	
+ 50			10.29 / 72.20	72.20 / 65.76	6.44
1 ~			8.91 / 73.58	73.58 / 67.03	6.55
+ 50			7.58 / 74.91	74.91 / 68.29	6.62
2 ~			6.18 / 76.31	76.31 / 69.56	6.75
+ 50			4.86 / 77.63	77.63 / 70.82	6.81
3 ~			3.46 / 79.03	79.03 / 72.09	6.94
+ 28 = MH 10 = 0+00			2.72 / 79.77	79.77 / 72.80	6.97
+ 50			1.32 / 81.16	81.16 / 74.06	7.10
1 ~			0.02 / 82.47	82.47 / 75.33	7.14

			190.06			
1+50				6.12 / 83.94	83.94 / 76.59	7.35
2 ~				4.75 / 85.31	85.31 / 77.86	7.45
2+40				3.60 / 86.46	86.46 / 78.87	7.59
Hilltop 2+81.21 = M.H. 11				3.15 / 86.91	86.91 / 79.91	7.00
	6.42		193.38	3.10	186.96	ct. & it = Hilltop
0+00 = MH 11						
+ 50				6.14 / 87.24	87.24 / 80.16	7.08
1 ~				5.97 / 87.41	87.41 / 80.41	7.00
+ 50				5.76 / 87.62	87.62 / 80.66	6.96
2 ~				5.60 / 87.78	87.78 / 80.91	6.87

Cont. P. 66

Stakes - Euclid Ave Sewer - To Westwood -
Plan 7260-L - Prelim. By Phelps
W.O. 60250

12.59	160.83		148.24	Top - MH. 14'90 S. of E
11.62	171.92	0.53	160.30	= Nail in post.
11.08	182.83	0.17	171.75	= Lath □ in pave E. edge opp. culvert.
		3.43	179.40	

171.92

M.H. 2 = 0+00	6' Rt.	9.86 / 62.06	62.06	155.40	6.66
+50		8.51 / 63.41	63.41	56.05	7.36
1~		8.48 / 63.44	63.44	56.70	6.74
+50		5.95 / 65.97	65.97	57.35	8.62
2~		4.43 / 67.49	67.49	58.00	9.49
+32		3.75 / 68.17	68.17	58.41	9.76
2+64 = M.H. 3 = 0+00	7' Rt. +15	3.46 / 68.46	68.46	58.83	9.63
+50	7' Rt.	2.89 / 69.03	69.03	59.48	9.55
1~	7' Rt.	2.76 / 69.16	69.16	60.13	9.03
+50	6' Rt.	6.12 / 65.80	65.80	60.78	5.02

		171.92			
1+80	Rt		3.21 68.71	68.71 61.17	7.54
2+55			4.22 78.61	78.61 62.14	16.47
2+69 = M.H. 4				62.33	

Cont. from P. 64

		193.38			
2+50			5.48 87.90	87.90 81.16	6.74
3+00			5.36 88.02	88.02 81.41	6.61
3+31.81 = M.H. 12 = 0+00			5.25 88.13	88.13 81.57	6.56
+50			5.06 88.32	88.32 81.82	6.50
1~			4.88 88.50	88.50 82.07	6.43
+50			4.76 88.62	88.62 82.32	6.30
2~			4.57 88.81	88.81 82.57	6.24
+50			4.41 88.97	88.97 82.82	6.15
3~			3.91 89.47	89.47 83.07	6.40
3+36.86 - M.H. 13 = 0+00			2.80 90.68	90.58 83.25	To S. 7.33

M.H. 13	to N.	~~204~~ 204.31		90.58 83.37	7.21
0+50			12.21 92.10	92.10 84.97	7.13
1~			10.56 93.75	93.75 86.57	7.18
+50			9.03 95.28	95.28 88.17	7.11
2~			7.43 96.88	96.88 89.77	7.11
+50			5.92 98.39	98.39 91.37	7.02
3~			4.26 00.05	00.05 92.97	7.08
3+29.82 = M.H. 26 = 0+00			3.34 00.97	00.97 93.94	7.03
+50			1.72 02.59	02.59 95.59	7.00
1~			0.15 04.16	04.16 97.24	6.92
		217.50			
+50			1.78 05.72	05.72 98.89	6.83

		217.50			
2+00			10.27 07.23	07.23 100.54	6.69
+50			8.73 08.77	08.77 02.19	6.58
3~			7.35 10.15	10.15 03.84	6.31
3+19 = M.H. 27 = 0+00			6.99 10.51 6.76	10.51 04.45 210.74 = ct. sta. A	6.06
+50			6.06 11.44	11.44 05.55	5.89
1~			4.94 12.56	12.56 06.65	5.91
+50			3.76 13.74	13.74 07.75	5.99
2~			2.67 14.83	14.83 08.85	5.98
+50			1.56 15.94	15.94 09.95	5.99
3~			0.38 17.12	17.12 11.05	6.07
3+40.18 = M.H. 28		229.66	11.61 18.05	18.05 11.93	6.12

229.66

0+00 = MH 28			11.93	
+50	10.42	19.24	13.03	6.21
1 ~	9.36	20.30	14.13	6.17
+50	8.13	21.53	15.23	6.30
2	6.99	22.67	16.33	6.34
+50	5.79	23.87	17.43	6.44
3 ~	4.69	24.97	18.53	6.44
3+41 = MH. 29	3.80	25.86	19.44	6.42
0+00				
+50	2.99	26.67	19.94	6.73
1 ~	2.60	27.06	20.44	6.62

1+50	2.43	27.23	20.94	6.29
2 ~	2.17	27.49	21.44	6.05
2+40 = DE.	2.09	27.57	21.84	5.73

~~3.50~~

0+00 = MH. 1

To W.

+25

+50

+75

1+00

+25

+50

Cont from P 63

Stakes for Sewer Alley Blks 191 192

1+75	4.56 − 0.54	−0.54 − 5.00	4.46
2 −	4.62 − 0.60	−0.60 − 5.20	4.60
+25	4.80 − 0.78	−0.78 − 5.40	4.62
+50	4.99 − 0.97	−0.97 − 5.60	4.63
+75	5.05 − 1.03	−1.03 − 5.80	4.77
+85 = Brk. in Line	5.00 − 0.98	−0.98 − 5.88	4.90
2+98 = Cross on Pave	5.27 − 1.25	−1.25 − 5.98	4.73
3+08.7 = MH	12.47 − 6.45	−1.37 − 6.07	4.70
	F.L. MH.		

Sewer Lats

①	4.79 − 0.71	−0.71 − 5.04	< 4.33
②	4.90 − 0.82	−4.84 − 0.82	< 4.02
③	4.81 − 0.73	−4.67 − 0.73	< 3.94

10-21-48

7.16

0+00 = MH 1		−3.50	
T.W.			
+25	6.64 − 0.52	+0.52 − 2.88	C. 3.40
+50	6.18 − 0.98	0.98 − 2.25	3.23
+75	5.65 − 1.51	1.51 − 1.63	3.14
1+00	4.56 − 2.60	2.60 − 1.00	3.60
+25	3.22 − 3.94	3.94 − 0.38	4.32
+50	1.34 − 5.82	5.82 + 0.25	5.57
1+75 = MH #2	5.17 − 6.62	6.62 + 0.88	5.74
℄ Strandway	0.55	6.61	Disk.
+30	4.59 − 7.20	7.20 − 1.63	5.57
+60 = D.E.	5.81 − 5.98	5.98 − 2.38	3.60

W.O. 90025 — 10-11-48 — 7.0.

Stakes for St. Drain Det. Draper & Eads N. of Silver. - 7272-L - B. 1726 - P. 57

	9.09	80.48	71.39	
0+00 = Inlet Ext. 4'x6' Culvert Draper	5.86 / 74.62	74.62	62.57	12.05
+35	4.41 / 76.07	76.07	62.13	13.94
+70	4.18 / 76.30	76.30	62.69	13.61
1+0.8	6.39 / 74.09	74.09	64.65	9.44
+40	2.18 / 78.30	78.30	64.81	13.49
+75	2.06 / 78.42	78.42	65.37	13.05
2+10	1.86 / 78.62	78.62	65.93	12.69
+45 = Brk.	1.74 / 78.74	78.74	66.49	12.25
2+80	+0.06 / 80.54	80.54	67.05	13.49
2+82.16 = ext. outlet at Eads	13.46 / 67.02	67.09		

10-21-48

70

New stakes

80.92					
18.34 / 62.58 = F.L.					
6.30 / 74.62	62.57	cut 12.05			
4.89 / 76.03	63.13	12.90			
4.76 / 76.16	63.69	12.47			
6.90 / 74.02	64.25	9.77			
3.38 / 77.54	64.81	12.73			
2.53 / 78.39	65.37	13.02	78.36	78.36 / 65.37	
2.38 / 78.54	65.93	12.61			
2.17 / 78.75	66.49	12.26			
6.37 / 80.55	67.05	13.50			
13.88 / 67.04 = F.L.	67.09				

10-12-48 Stake sewer in Lots 162 Ex Mission
Hendricks Lands of SD (Plan # 7260-L)
Roberts.
Greer
Rorer
WO#6050

Sta.	+	H I	—	Elev Stakes	Elev Gr.	Cuts	offsets
			4.99	148.25			
CC Rim	MH.	143.90	Lt 4+39.69		148.25	P-65 This Book	
4+39.69	MH#1		6.61	146.63	142.65	3.98	6' Lt
4+00			4.97	148.27	143.80	4.47	"
T.P.	2.38	153.24	11.71	150.86			
3+50			11.71	150.86	145.25	5.61	"
3+00			10.18	152.39	146.70	5.69	"
2+50			7.71	154.86	148.15	6.71	"
2+00			7.23	155.34	149.60	5.74	"
1+50			5.81	156.76	151.05	5.71	"
1+00			4.80	157.77	152.50	5.27	"
0+50			2.58	159.99	153.95	6.04	"
0+00	MH#2		0.50	162.07	155.40	C 6.67	C 6.66 P-65
B.M.	2.27	162.57			160.30	Nail in post P-65 this Book.	

10-12-48
Hendricks
Roberts
Rorer
Greer
WO#60250

State Euclid Ave Sewer to Westwood.
Plan #7260 L

Sta.	+	H.I	−	Elev. Stakes	Elev. Grade	Cuts	Offsets
		(Cont'd P. 73)					
5+90.12	MH #6		Forward Tangent 5.39	185.50	178.78	6.72 ✓	
5+90.12	MH #6		Back Tangent 5.66	185.23	178.78	6.45 ✓	6' Rt
+50			8.28	182.61	178.02	4.59 ✓	"
5+00			5.21	185.68	177.09	8.59 ✓	"
+50			4.50	186.39	176.16	10.23 ✓	"
TP 4+00	7.58	190.89	0.50	183.31	175.23	8.08 ✓	"
+50			2.47	181.34	174.30	7.04 ✓	"
3+00			3.67	180.14	173.37	6.77 ✓	"
2+72.00	MH #5		4.12	179.69	172.85	6.84 ✓	"
+50			4.34	179.47	172.00	7.47 ✓	"
2+00			5.25	178.56	170.09	8.47 ✓	"
+50			7.92	175.89	168.17	7.72 ✓	"
1+00			9.39	174.42	166.26	8.16 ✓	"
0+50			10.28	173.53	164.34	9.19 ✓	"
0+00	MH #4		7.37	176.44	162.43 162.33	14.01 14.11	"
B.M.	4.41	183.81			179.40	Q in E. Edge Pave opp. Culvert from #65 this Book	

Contd. from P.72

B.M			10.89	179.39	179.40
T.P.	0.63	190.28	7.67	189.65	
Ck Stub	6' Rt. Ex. Line		1.08	196.24	
+62.75	MH #8 End.		1.43	195.89	189.09
+50			2.42	194.90	188.86
11+00			2.24	195.08	187.96
+50			5.04	192.28	187.06
10+00			6.84	190.48	186.16
+50			6.10	191.22	185.26
9+00			5.17	192.15	184.36
+61.50	MH #7		4.60	192.72	183.67
+50			4.55	192.77	183.46
8+00			4.81	192.51	182.56
+50			5.48	191.84	181.66
T.P. 7+00	7.67	197.32	1.24	189.65	180.76
+50			3.12	187.77	179.86
6+00			4.95	185.94	178.96
		190.89			

Cuts offsets

Ck Starling B.M. P.72.

6.80	6' Rt.
6.04	"
7.12	"
5.22	"
4.32	"
5.96	"
7.79	"
9.05	
9.31	
9.95	
10.18	
8.89	
7.91	
6.98	

W.O. 31333 — 10-14-48 — 7.0.

Pave Grades - Alicia - Tennyson to Wells

95.75 = N.W. B.P. Alicia & Tennyson

curb Cuts.

		S.	℄	N.
0+00 = ℄ of W.L. Tennyson				
0 -				
0+16 = Pave				
0+22.8 =		95.54	96.09	95.84
Rake				
	Set ℄ for .4 Crown to Match side Brk.s			
2+00 = Brk		107.01	07.58	107.30
Rake				
2+50 = Brk		10.30	10.86	10.62
3+14.40 = E.L. Alley		14.98	15.38 stake	14.98
3+29.20 = W.L. Filley		16.64	17.31 stake	17.17
Filley Returns -	- W. side		Top-end cb.	
stake	3' Back	1.93 / 18.62	18.33	C 0.29
	E. side		Top-end.	
	3' Back	15.92	16.19	F 0.27
	4 Rad.			
6' S. = P.C.		15.56	15.87	F 0.31

Around Curve - P.C. = 0+00

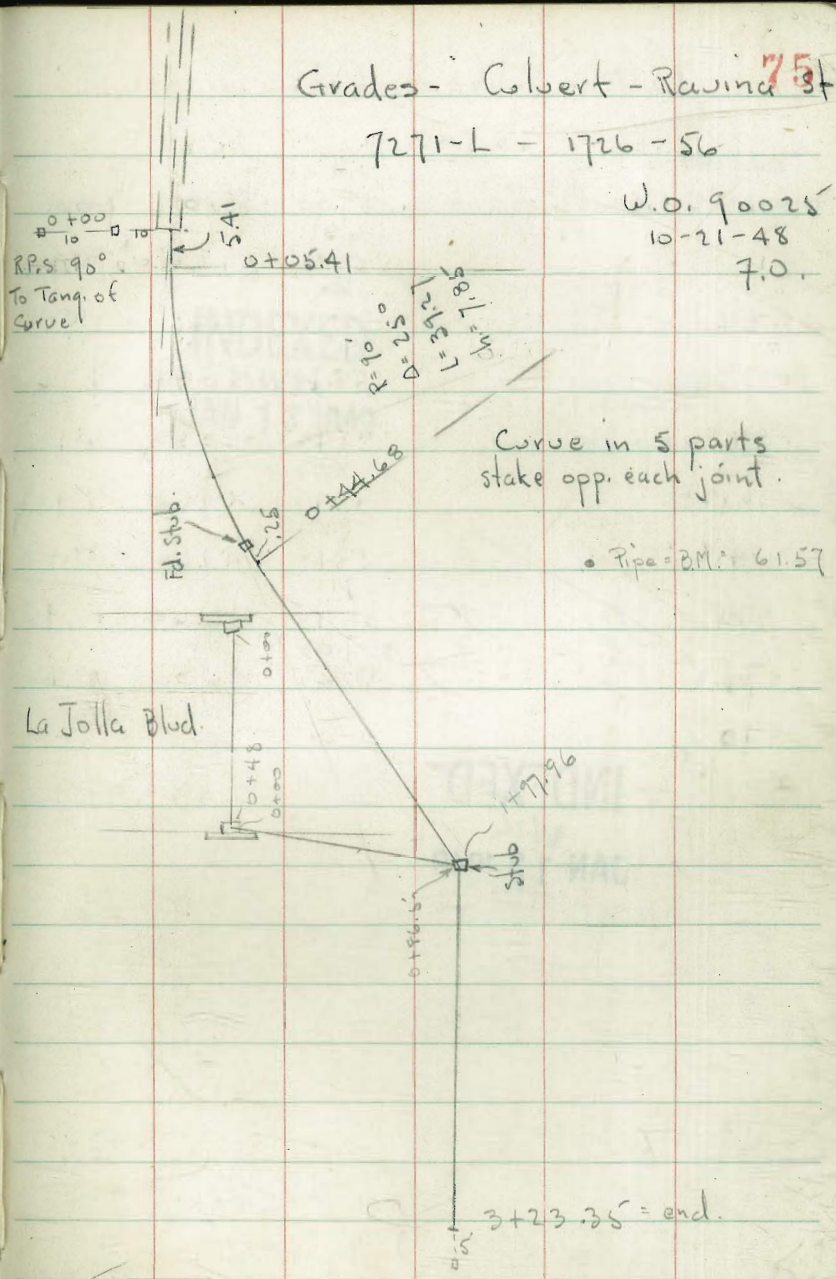
S. side	℄		
0+00 = P.C.	0+00	17.31	16.64
+20	+35	20.45	18.34
+40	+63	22.96	20.05
+60	+82.3	24.69 = P.C.	21.76
+80	+85	24.76 = Prop.	23.47
1+01.2 = end cb.			25.27
Prop Line			25.35 - F 0.21 To pave
N. side			
0+00 = P.C. = stake			17.17
+14 = EC Ret			18.51
+30			20.04
+46			21.57
+64 = end cb			23.30
Prop. Line			23.39 - C 0.34
= Pave Grade			
17.77 = end			
16.03 = end			
15.45			

Grades - Colvert - Ravina St.

7271-L - 1726-56

W.O. 90025
10-21-48
7.0.

	2.73	65.98		63.25	= SW Hyd.
			5.12		cut.
0+00 = Conn.		π = 56.83 =	51.71	41.50	10.21
		stakes - 10' Rt.	4.15		
+05.41 = P.C			52.68	41.33	11.35
			4.92		
+13.26			51.91	41.08	10.83
			4.48		
+21.11			52.35	40.83	11.52
			3.60		
+28.96			53.23	40.58	12.65
		65.98	9.41		
+36.81			56.57	40.33	16.24
			6.19		
+44.68 = E.C.			59.79	40.08	19.71
			5.81		
+60			60.17	39.58	20.59
			5.73		
+75			60.25	39.10	21.15
			5.92		
+90			60.06	38.62	21.44
		Cross	6.78		
1+04 =		10' Rt.	59.23	38.17	21.06
		65.46	6.32		
+20			59.14	37.66	21.48
			7.43		
+71			58.03	36.02	22.01
			7.03		
+97.96 = M.H.			58.43	35.15	23.28
			7.11		
2+25 -		15' Rt.	58.35	34.29	24.06
			6.93		
+50		"	58.53	33.49	25.04
			9+0		
+75		"	56.06	32.69	23.37
		47.81	11.42		
3+06		- 20' Rt.	36.39	31.70	4.69
			12.73		
3+23.35 -		5' ahead	35.08	31.14	3.94
		on Line			



Ravena Drain - Cont

		65.46		
Cross on cb.				
0+00 = 2' out = edge of Box		6.46 / 59.00	52.00	7.00
+11 = 5' S		6.61 / 58.85	51.66	7.19
+24	"	6.65 / 58.81	51.25	7.56
+37	"	7.36 / 58.10	50.84	7.26
+48 = edge Box (Cross on cb.) = 0+00 to S.		8.04 / 57.42	50.50	6.92
= +25		8.33 / 57.13	49.20	7.93
+55		7.32 / 58.14	47.64	10.50
+75		7.11 / 58.35	46.60	11.75
+86.5'		7.03 / 58.43	46.00	12.43

Sewer Grades - 49th + A St

	2.54	210.83	208.29 - Hyd.	See P. 60
0+00 = M.H. 17		203.10	195.50	C 7.60
+50		6.80 / 04.03	04.03 / 95.70	C 8.33
1~		5.95 / 04.88	04.88 / 95.90	8.98
+50		5.66 / 05.17	05.17 / 96.10	9.07
2~		5.28 / 05.55	05.55 / 96.30	9.25
2+35.96 = M.H. 18 = 0+00		5.30 / 05.53	05.53 / 96.45	9.08
+50		5.22 / 05.61	05.61 / 96.65	8.96
1~		5.09 / 05.74	05.74 / 96.85	8.89
+50		4.73 / 06.10	06.10 / 97.05	9.05
2~		4.28 / 06.55	06.55 / 97.25	9.30

		210.83							
		To S.	4.07	06.76			10.91	08.83	
2+36.04 = MH. 19		To N.	06.76	97.40	9.36	1+50	08.83	03.09	5.74
27° 11' 45" Lt				97.50	9.26				
0+00							9.58	10.16	
T. P. on Rock		212.29	4.19	206.64		2~	10.16	04.13	6.03
			5.71	06.58			7.23	12.51	
0+50			06.58	98.00	8.58	+50	12.51	05.17	7.34
			5.80	06.49			4.10	15.64	
1~			06.49	98.50	7.99	2+96.06 = M.H. 21	15.64	06.12	9.52
			5.71	06.58			1.28	18.46	
+50			06.68	99.00	7.58	+39	18.46	06.68	11.78
						225.90			
			5.39	06.90			4.37	21.53	
2~			06.90	99.50	7.40	+81 = D.E.	21.53	07.28	14.25
		To S	4.96	07.33					8.92
2+34.0 = M.H. 20			07.33	99.84	7.49	"B" Line - from M.H 20			10.82 = T.P.
Hng. 13° 09" 45" Lt.		To N				219.74		199.97	
3' S. of ℄ of R.O.W.		+ω°		99.97	7.36	0+00 = MH. 20		06.94	
T.P. = M.B. Top			2.09	210.20		+35	12.80	201.86	5.08
						+70	06.94	10.11	
			11.81	07.93			9.63	03.75	6.36
0+50			07.93	201.01	6.92	1+10	10.11	12.85	
						221.07	8.22	05.91	6.94
			11.37	8.37		1+45	12.85	14.81	
1~			8.37	02.05	6.32		6.26	07.80	7.01
						1+80	14.81	16.61	
							4.46	09.69	6.92
						2+26 = D.E.	16.61	19.11	
							1.96	212.17	6.94
							19.11		

	Stakes 5' Rt.									
0+00 = M.H.	17 5+10		03.07	95.60	7.47	1+05			18.07	12.22	5.85
0+39.85	= Hng.		04.76	97.40	7.36	+40			18.19	12.47	5.72
0+75		changed.	05.97	98.75	7.22	+75			18.71	12.71	6.00
1+05			07.58	200.10	7.48	2+15			19.08	12.99	6.09
1+35			07.83	01.45	6.38	+45			18.99	13.20	5.79
1+66.60	M.H. 32		~~04.22~~	02.86	5.36	+80			18.73	13.44	5.29
0+00						3+15			19.12	13.69	5.43
						3+45			19.03	13.90	5.13
			09.32				5+10				
0+35				03.82	5.50	3+73.43	= M.H. 36	To E. To W.	18.96	14.10 14.19	4.86 4.77
0+70		changed.	11.31	04.78	6.53	0+35			20.25	15.06	5.19
1+05			12.21	05.74	6.47	+70			2149	1594	5.55
1+33.79	10+20 M.H. 33		12.53	06.66	5.87	1+05			22.84	16.81	6.03
0+40			13.26	07.50	5.76	1+40			24.76	17.69	7.07
+80			13.78	08.34	5.44	+75	5' Lt		26.19	18.56	7.63
1+12 =	5+10 M.H. 34		15.02	09.01	6.01	2+10			27.48	19.44	8.04
+40			15.69	09.83	5.86	2+39	6+12 M.H. 37		27.70	20.17	7.53
+80			16.71	10.65	6.06	Line to N.					
1+20.8	10+20 = M.H. 35		18.46	11.49	6.97	0+50			27.98	21.17	6.81
+35			18.28	11.73	6.55	1+00			28.23	22.17	6.06
+70			18.33	11.98	6.35	+50			29.18	23.17	6.01
						1+95	= D.E.		29.65	24.07	5.58

Line to W. - stakes 5' Lt.

0+00 =	M.H. 37		20.17	
+50		27.61	20.52	7.09
1+00		27.44	20.87	6.57
+50		27.24	21.22	6.02
+80		27.05	21.43	5.62
2+07 =	D.E.	26.85	21.62	5.23

"A" Line

225.37 = Top Hyd. Fed. + 49 +5

0+00 =	MH. 21	15.65	206.22	9.43
+35		15.16	07.60	7.56
+70		15.94	08.99	6.95
1+05		16.27	10.37	5.90
+40 =	5' Lt.	16.02	11.76	4.26
+75		19.37	13.14	6.23
2+10		21.02	14.53	6.49
+45		23.35	15.91	7.44
2+80		25.09	17.30	7.79
3+00 =	M.H. 30	25.13	18.10	7.03
3+15		25.20	18.25	6.95
3+50		25.59	18.60	6.99

228.14 = Ld. ct. Fed. + 47 +5
.05

3+85		26.02	18.95	7.07
4+20		2573	19.30	6.43
4+55		25.23	19.65	5.58
4+85		25.45	19.95	5.50
5+15		25.80	20.25	5.55
5+44.74 =	M.H. 31	25.95	20.55	5.40
0+32		26.66	20.87	5.79
0+64 =	D.E.	27.21	21.19	6.02

5' ahead.

"F" Line

0+00 =	MH. 32	08.22	202.86	5.36
+35		08.73	03.24	5.49
+70		08.58	03.63	4.95
1+05		09.30	04.01	5.29
+40		09.81	04.40	5.41
+75		09.99	04.78	5.21
2+10		09.61	05.17	4.44
+45		09.99	05.55	4.44
+80		10.45	05.94	4.51
3+10 =	MH. 38	11.70	06.27	5.43

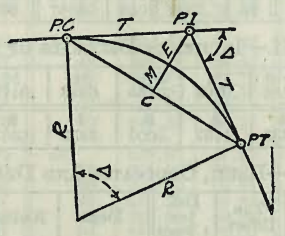
0+00

0+35	13.42	06.65	6.77
+70	13.84	07.04	6.80
1+10	13.77	07.48	6.29
+40	14.12	07.81	6.31
+75	13.43	08.19	5.24
2+10	13.33	08.58	4.75
2+45 = M.H. 39 - To E	13.67	08.96	4.71
0+00 To N.		09.06	4.61
+40	13.79	09.73	4.06
+70	14.18	10.23	3.95
1+05	15.03	10.81	4.22
+40	15.60	11.40	4.20
1+73.28 = M.H. 40	16.59	11.96	4.63
0+00			
+40	17.40	12.68	4.72
+80 = D.E.	18.39	13.40	4.99

"G" Line

0+00 = M.H. 39	13.67	08.96	4.71
+38	13.70	09.22	4.48
+76 = D.E.	14.04	09.49	4.55

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



CURVE FORMULAS

Radius=R=$\frac{50}{\text{sin. } D/2}$ (1) Degree of Curve=D and sin. $\frac{D}{2}=\frac{50}{R}$ (2)

Tangent=T=R tan $\frac{\Delta}{2}$ (3) Length of Curve=L=$100\frac{\Delta}{D}$ (4)

Middle ordinate=M=R(1—cos. $\frac{\Delta}{2}$) (5)=R vers $\frac{\Delta}{2}$ (6)

External=E=T tan $\frac{\Delta}{4}$ (7)=R ÷ cos. $\frac{\Delta}{2}$—R(8)=R exsec $\frac{\Delta}{2}$ (9)

Long Chord=C=2 R sin. $\frac{\Delta}{2}$ (10) Δ=Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161+60.35 to find Sta. of P. C. and P. T. Δ=62° 10′ D=8° 20′. From Table IV for 1° curve T=3454.1 and ÷8⅓=414.49 ft. From Table V correction=.36 or T=414.85 ft. P. C.=Sta. P.I.—T=157 +45.50. Also from (4) L=746.00 and P. T.=Sta. P. C.+L=164+91.50.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft.=7.27 ft. Distance=158—Sta. P. C.=54.50, hence offset=7.27 $(54.50 \div 100)^2$=2.16 ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26)$=2.16 ft.

Deflections.—Deflection angle=½ D for 100 ft., ¼ D for 50 ft., etc. For c ft.=(in minutes) .3 x C x D° or=defl. for 1 ft. from Table III x C. For Sta. 158 of above curve=.3 x 54.5 x 8⅓=136.2′ or 2° 16.2′, or=2.50 x 54.5=136.2′ from Table III. For Sta. 159 deflection angle=2° 16.2′ +8° 20′ ÷2=6° 26.2′, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 115.37. For from Table IV for 1° curve E=960.6 for 8° 20′=960.6 ÷8⅓=115.27 and from Table V correction=.10 or E=115.37 ft. Or suppose Δ=32° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

Table IV.—Tangents and Externals to a 1° Curve.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
91°	5830.5	2444.9	101°	6950.6	3278.1	111°	8336.7	4386.1
10′	5847.5	2457.1	10′	6971.3	3294.1	10′	8362.7	4407.6
20	5864.6	2469.3	20	6992.0	3310.1	20	8388.9	4429.2
30	5881.7	2481.5	30	7012.7	3326.1	30	8415.1	4450.9
40	5898.8	2493.8	40	7033.6	3342.3	40	8441.5	4472.7
50	5916.0	2506.1	50	7054.5	3358.5	50	8468.0	4494.6
92	5933.2	2518.5	102	7075.5	3374.9	112	8494.6	4516.6
10	5950.5	2531.0	10	7096.6	3391.2	10	8521.3	4538.8
20	5967.9	2543.5	20	7117.8	3407.7	20	8548.1	4561.1
30	5985.3	2556.0	30	7139.0	3424.3	30	8575.0	4583.4
40	6002.7	2568.6	40	7160.3	3440.9	40	8602.1	4606.0
50	6020.2	2581.3	50	7181.7	3457.6	50	8629.3	4628.6
93	6037.8	2594.0	103	7203.2	3474.4	113	8656.6	4651.3
10	6055.4	2606.8	10	7224.7	3491.3	10	8684.0	4674.2
20	6073.1	2619.7	20	7246.3	3508.2	20	8711.5	4697.2
30	6090.8	2632.6	30	7268.0	3525.2	30	8739.2	4720.3
40	6108.6	2645.5	40	7289.8	3542.4	40	8767.0	4743.6
50	6126.4	2658.5	50	7311.7	3559.6	50	8794.9	4766.9
94	6144.3	2671.6	104	7333.6	3576.8	114	8822.9	4790.4
10	6162.6	2684.7	10	7355.6	3594.2	10	8851.0	4814.1
20	6180.2	2697.9	20	7377.8	3611.7	20	8879.3	4837.8
30	6198.3	2711.2	30	7399.9	3629.2	30	8907.7	4861.7
40	6216.4	2724.5	40	7422.2	3646.8	40	8936.3	4885.7
50	6234.6	2737.9	50	7444.6	3664.5	50	8965.0	4909.9
95	6252.8	2751.3	105	7467.0	3682.3	115	8993.8	4934.1
10	6271.1	2764.8	10	7489.6	3700.2	10	9022.7	4958.6
20	6289.4	2778.3	20	7512.2	3718.2	20	9051.7	4983.1
30	6307.9	2792.0	30	7534.9	3736.2	30	9080.9	5007.8
40	6326.3	2805.6	40	7557.7	3754.4	40	9110.3	5032.6
50	6344.8	2819.4	50	7580.5	3772.6	50	9139.8	5057.6
96	6363.4	2833.2	106	7603.5	3791.0	116	9169.4	5082.7
10	6382.1	2847.0	10	7626.6	3809.4	10	9199.1	5107.9
20	6400.8	2861.0	20	7649.7	3827.9	20	9229.0	5133.3
30	6419.5	2875.0	30	7672.9	3846.5	30	9259.0	5158.8
40	6438.4	2889.0	40	7696.3	3865.2	40	9289.2	5184.5
50	6457.3	2903.1	50	7719.7	3884.0	50	9319.5	5210.3
97	6476.2	2917.3	107	7743.2	3902.9	117	9349.9	5236.2
10	6495.2	2931.6	10	7766.8	3921.9	10	9380.5	5262.3
20	6514.3	2945.9	20	7790.5	3940.9	20	9411.3	5288.6
30	6533.4	2960.3	30	7814.3	3960.1	30	9442.2	5315.0
40	6552.6	2974.7	40	7838.1	3979.4	40	9473.2	5341.5
50	6571.9	2989.2	50	7862.1	3998.7	50	9504.4	5368.2
98	6591.2	3003.8	108	7886.2	4018.2	118	9535.7	5395.1
10	6610.6	3018.4	10	7910.4	4037.8	10	9567.2	5422.1
20	6630.1	3033.1	20	7934.6	4057.4	20	9598.9	5449.2
30	6649.6	3047.9	30	7959.0	4077.2	30	9630.7	5476.5
40	6669.2	3062.8	40	7983.5	4097.1	40	9662.6	5504.0
50	6688.8	3077.7	50	8008.0	4117.0	50	9694.7	5531.7
99	6708.6	3092.7	109	8032.7	4137.1	119	9727.0	5559.4
10	6728.4	3107.7	10	8057.4	4157.3	10	9759.4	5587.4
20	6748.2	3122.9	20	8082.3	4177.5	20	9792.0	5615.5
30	6768.1	3138.1	30	8107.3	4197.9	30	9824.8	5643.8
40	6788.1	3153.3	40	8132.3	4218.4	40	9857.7	5672.3
50	6808.2	3168.7	50	8157.5	4239.0	50	9890.8	5700.9
100	6828.3	3184.1	110	8182.8	4259.7	120	9924.0	5729.7
10	6848.5	3199.6	10	8208.2	4280.5	10	9957.5	5758.6
20	6868.8	3215.1	20	8233.7	4301.4	20	9991.0	5787.7
30	6889.2	3230.8	30	8259.3	4322.4	30	10025.0	5817.0
40	6909.6	3246.5	40	8285.0	4343.6	40	10069.0	5846.5
50	6930.1	3262.3	50	8310.8	4364.8	50	10093.0	5876.1

	35°	70°
	.018	.020
	.047	.051
	.076	.083
	.127	.135
	.179	.188
	.247	.264
	.315	.341
	.411	.445
	.508	.550
	.641	.700
	.774	.851
	.922	1.01
	1.08	1.17
	1.29	1.39
	1.50	1.62
	1.76	1.91
	2.03	2.20
95°	2.18	2.38	2.58
100°	2.28	2.50	2.73	2.96
110°	3.05	3.35	3.66	3.96
120°	4.11	4.50	4.91	5.32

6.93
7.32
6.56
13.88

18.34

11.79

93.38 7.16

79.51
2.54
76.97

2.54
78.42
80.96
2.38
78.48

25.90 28.49 80.48

1979

115.39
8.
107 39

197.96
107
90.96

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9+(20—16)÷2 or 2 ft. added to 41.9 =43 9. For slopes of 1 on 1 see inside of front cover.